DOCUMENT RESUME

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ABSTRACT

Mathematics and the use of mathematical thinking is much more than what has been traditional school arithmetic. Much of the mathematical reasoning can be developed and experienced out of school, particularly in the home. This material contains recording forms and worksheets for activities for the Level Two experiences. Pupils are to complete these as part of their learning experiences. Forms and worksheets are included for all of the concepts and skills of the Level Two program. (YP)

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MEANINGFUL MATHEMATICS

LEVEL TWO

RECORDING FORMS
AND
WORKSHEETS FOR PUPIL USE

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SE 051 191

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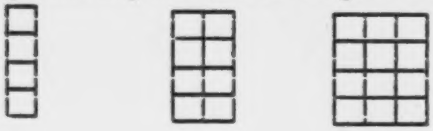
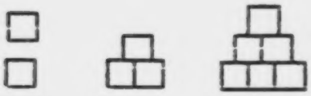
PATTERN TILE WORKSHEET

Here are the first three in tile patterns. Make the next two and record these by coloring in squares on your form:





MATHEMATICIAN:______________________________

MY TILE PATTERNS

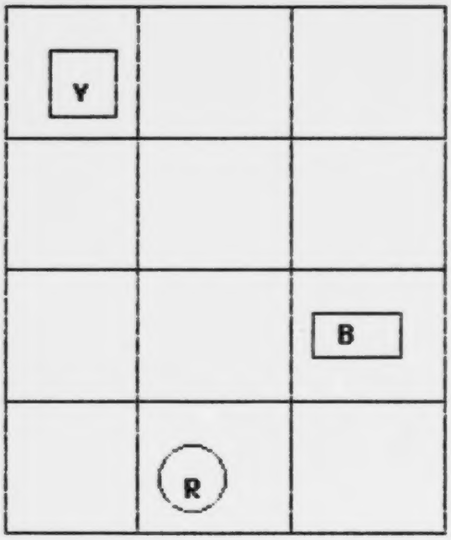
*MATHEMATICIAN:*______________________________

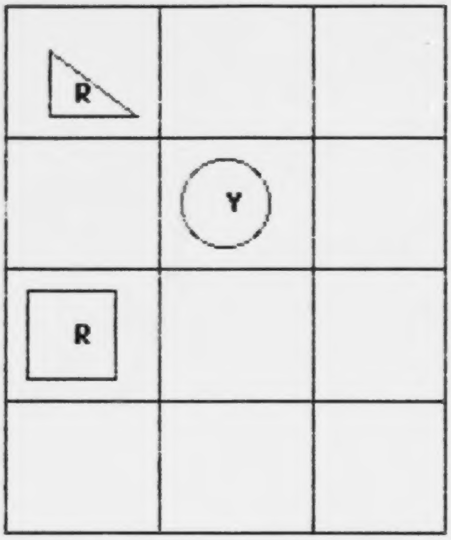
My Rod Pattern

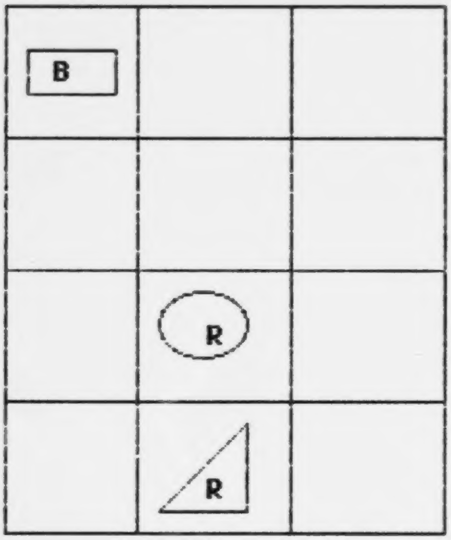
I used ______________Rods.
CAN YOU fill in the outline with that many rods?

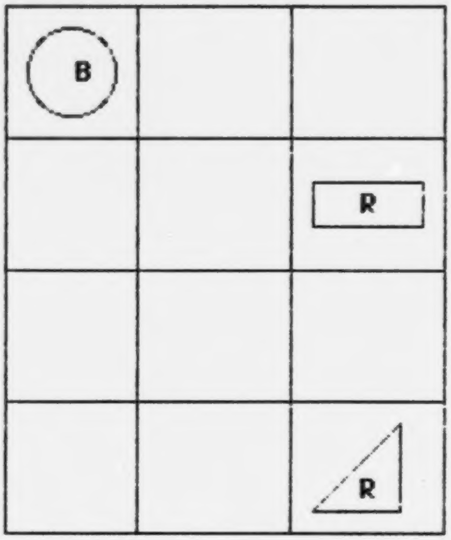
MATHEMATICIAN:____

I Used Blocks to Complete These





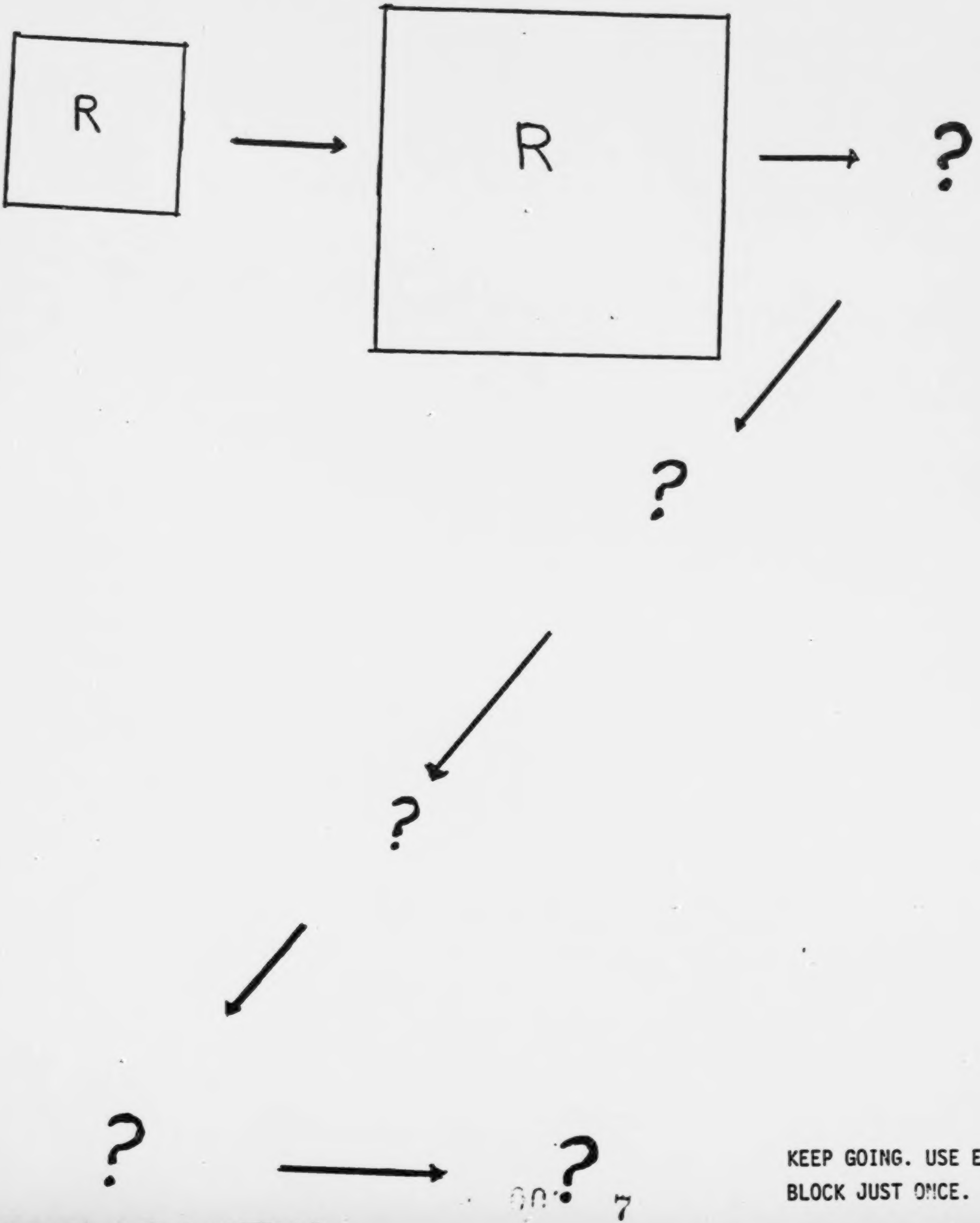




Logic; LESSON ONE

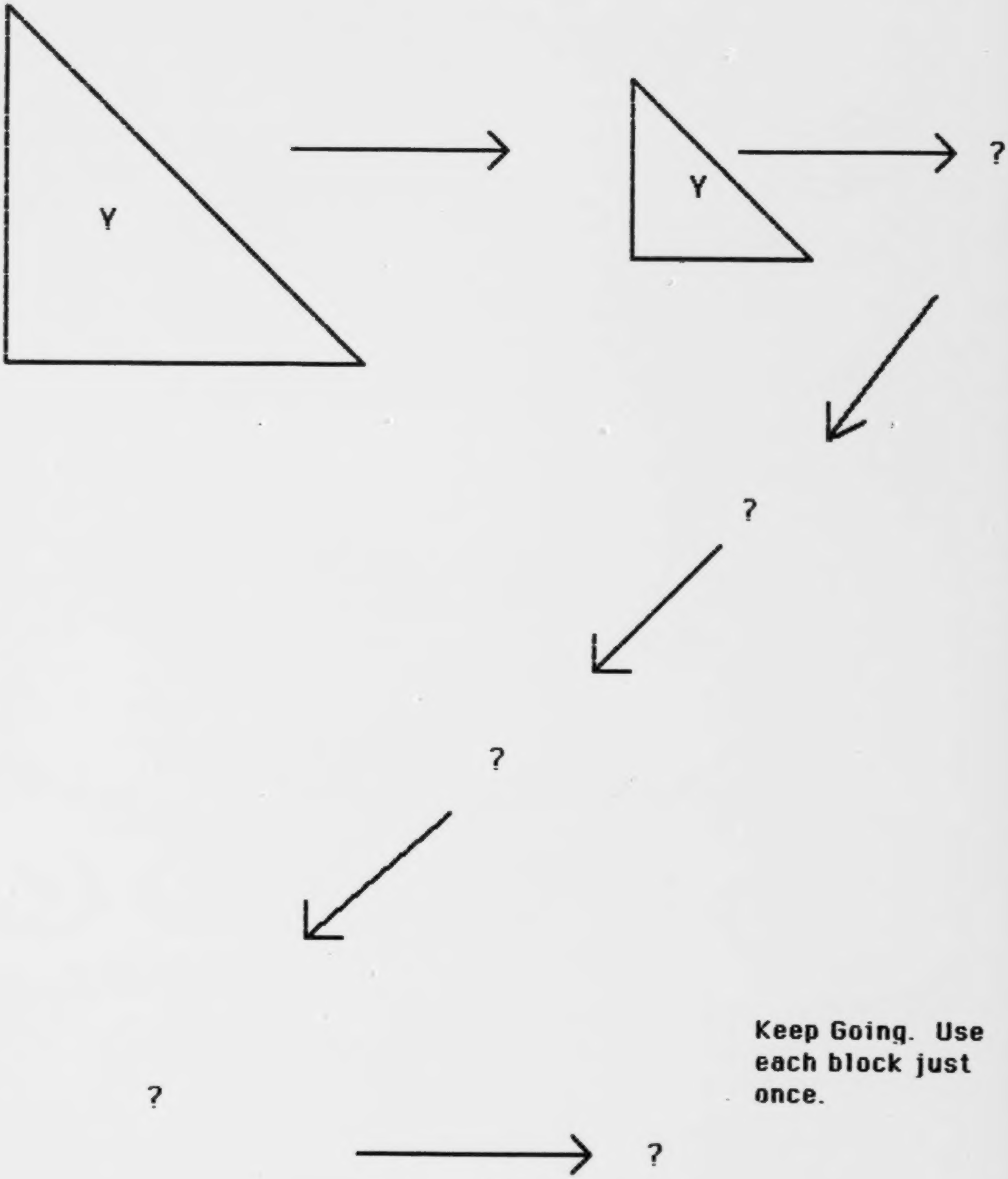
A ONE DIFFERENCE TRAIN

Use ALL of the blocks.



KEEP GOING. USE EACH
BLOCK JUST ONCE.

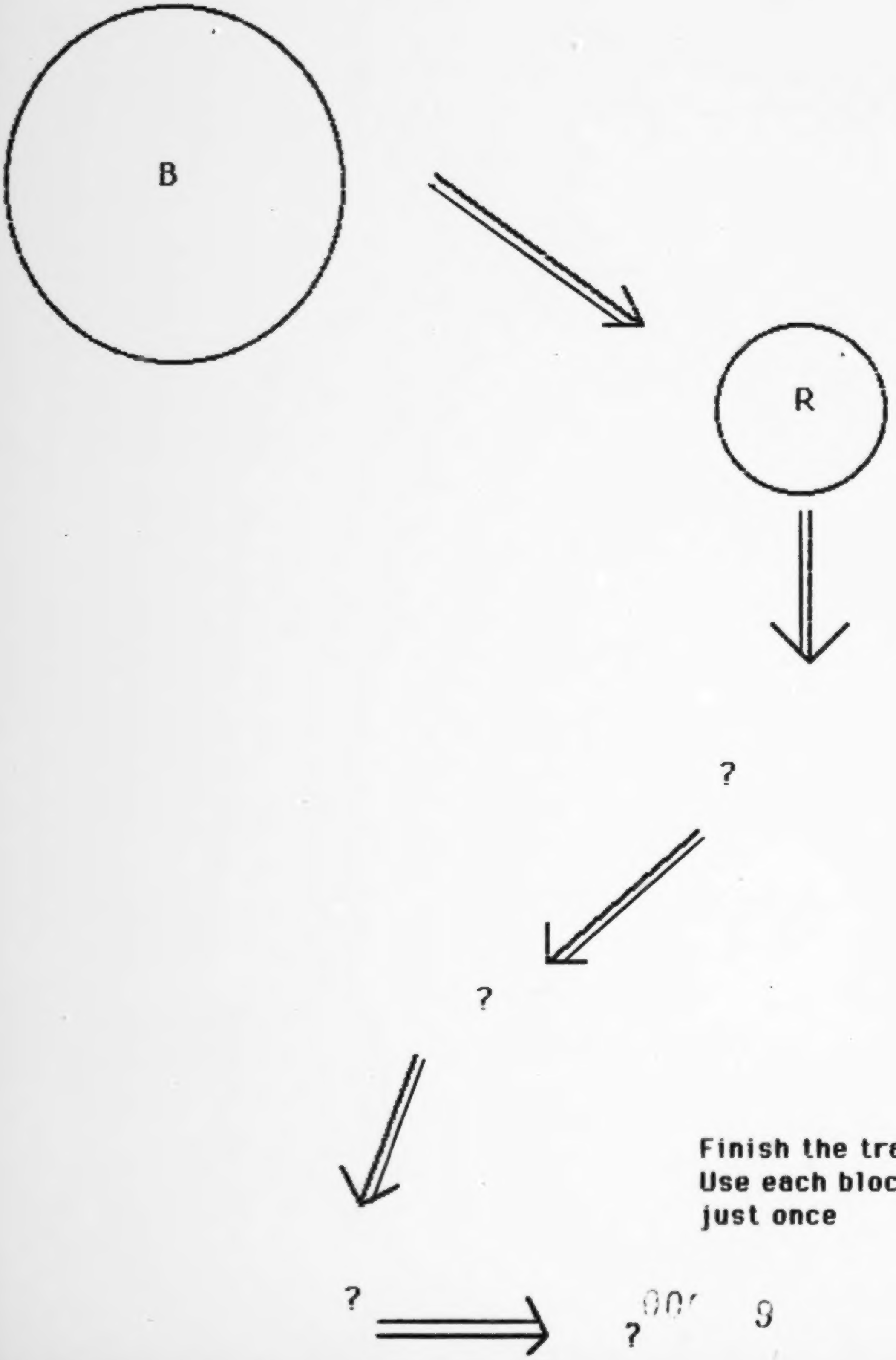
1 DIFFERENCE TRAIN



Keep Going. Use each block just once.

LoGic: LESSON TWO

2 DIFFERENCE TRAIN



Finish the train.
Use each block
just once

LOGIC: LESSON TWO

MATHEMATICIAN: ______________________________

INSIDE	*OUTSIDE*
Red	
	Square
Triangle	
Yellow	
	Rectangle
	Blue
Circle	

LOGIC: USING NOT

MATHEMATICIAN: ____

Ordering Things

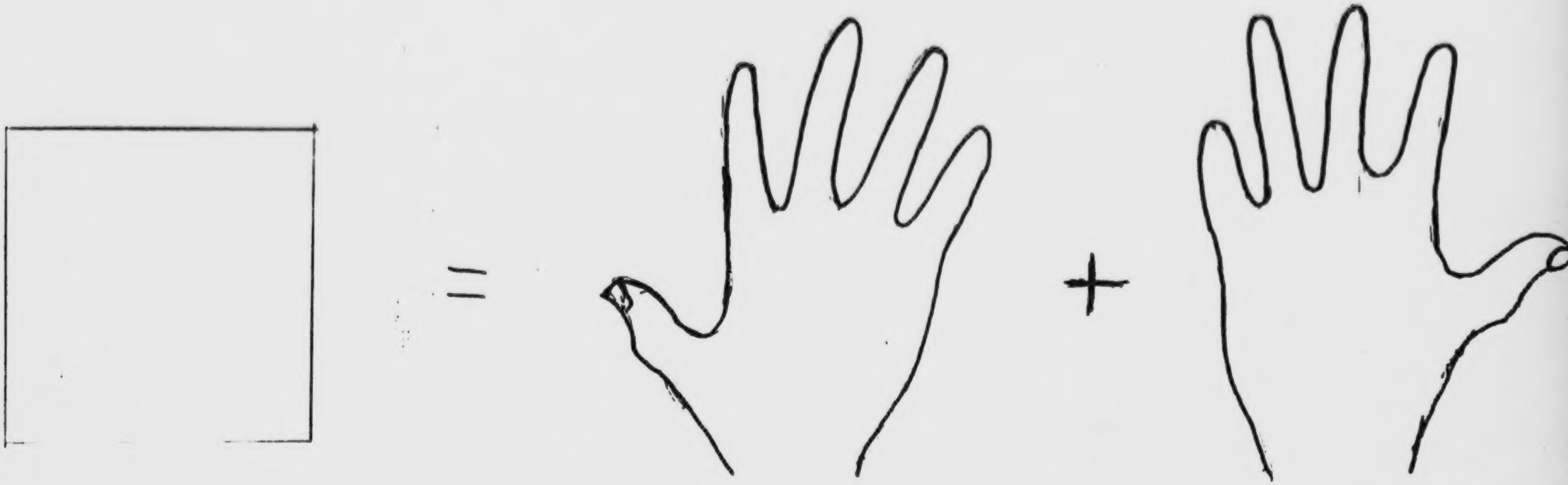
Heaviest ↔ **Lightest**

ORDERED

Objects Used	HEAVIEST					LIGHTEST

*MATHEMATICIAN:*______________________________

PUT TOGETHER GAME
WORKMAT



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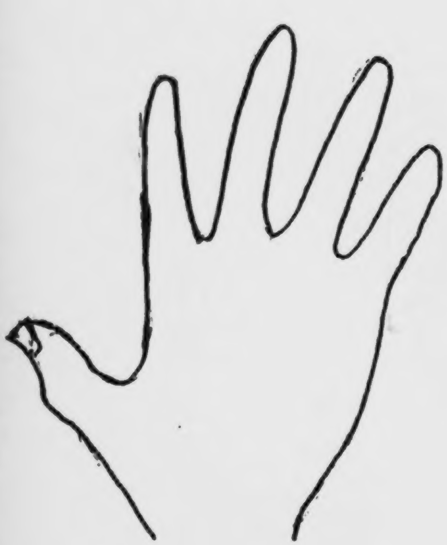
13

*MATHEMATICIAN:*____

PUT TOGETHER GAME
WORKMAT



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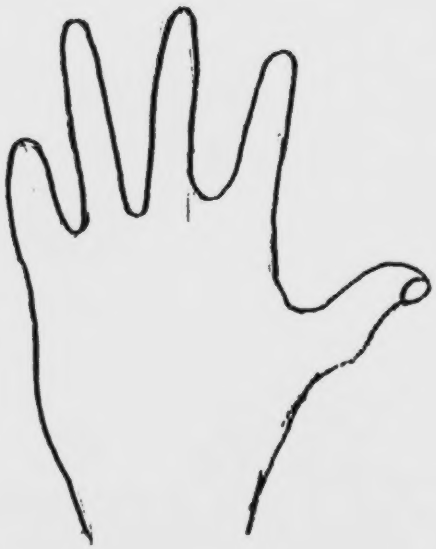

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MATHEMATICIAN: ______________________________

TAKE APART GAME
WORKMAT

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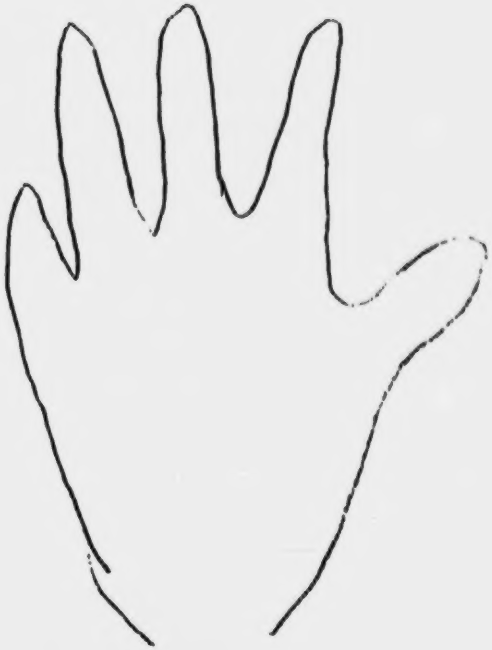

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FINDING THE DIFFERENCE GAME
WORKMAT

$$\boxed{A} - \boxed{B} = \boxed{C}$$

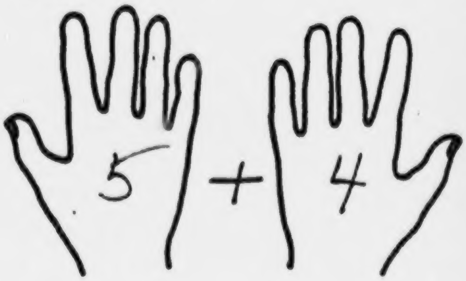
DIFFERENCE

MATHEMATICIAN:______________________________

My Put Together Game Record

Example!

9 =



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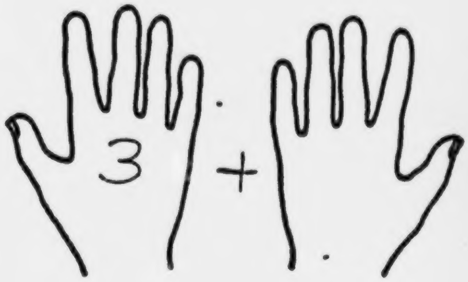

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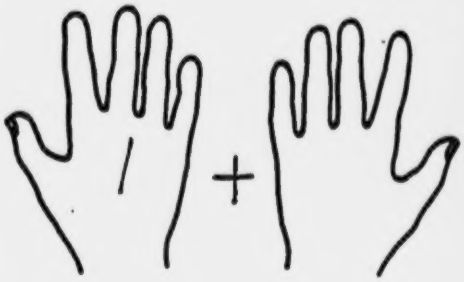

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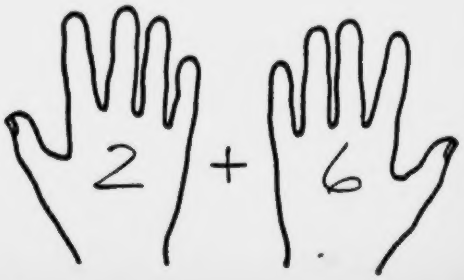

MATHEMATICIAN: ______________________________

My Put Together Game Record

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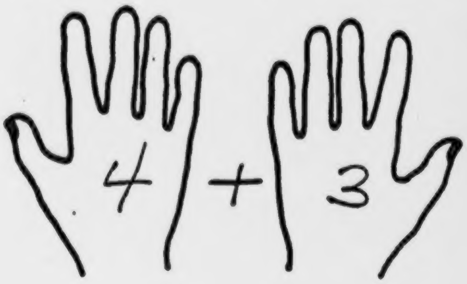

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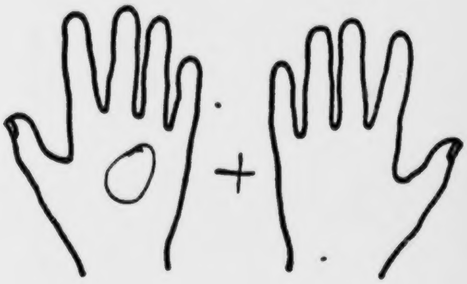

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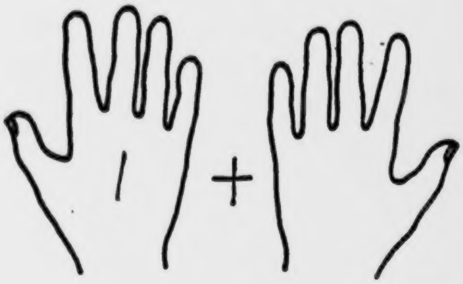

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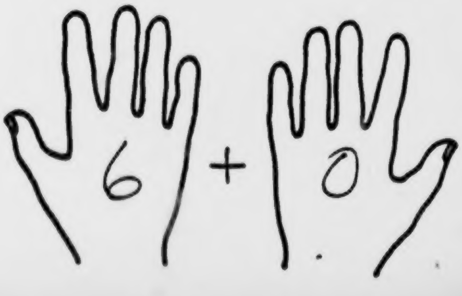

MATHEMATICIAN:______________________________

My Put Together Game Record

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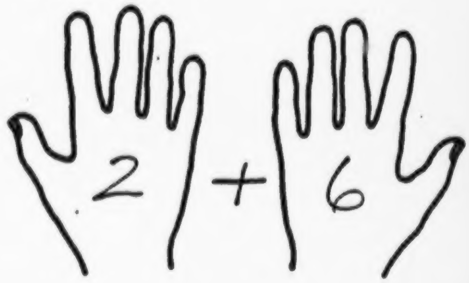

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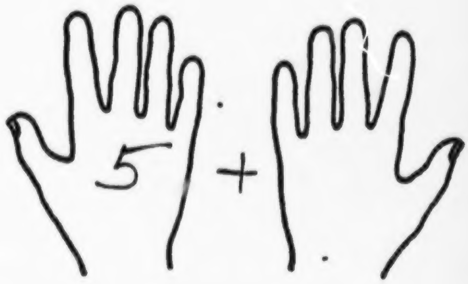

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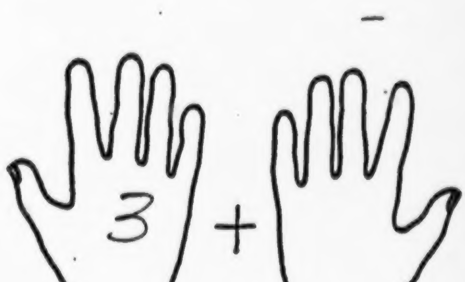

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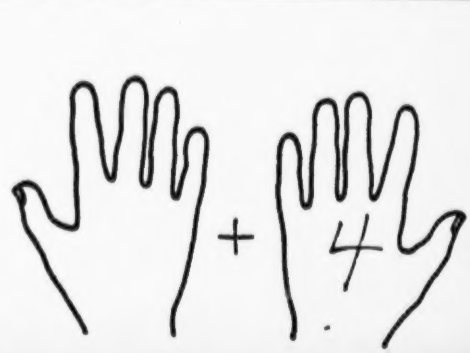
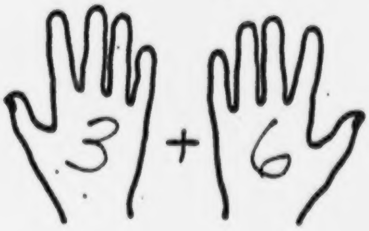


MATHEMATICIAN: ______________________________

THE PUT TOGETHER GAME

Example!



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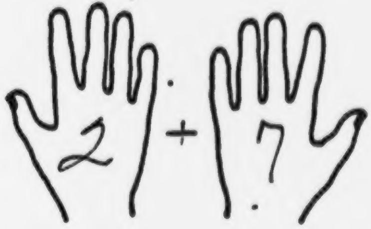

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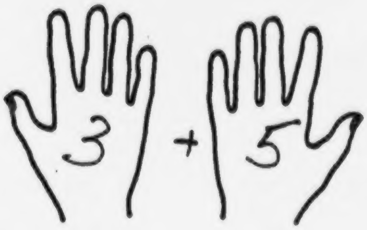

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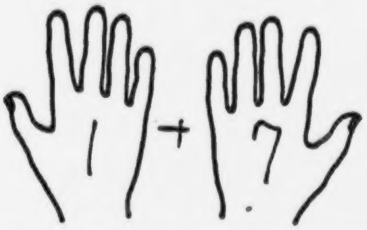

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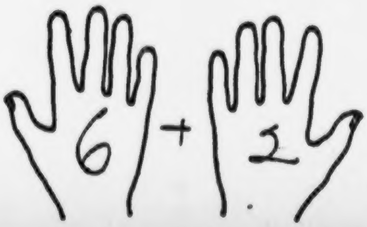

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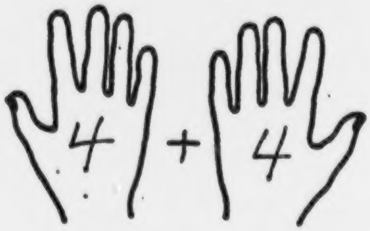
MATHEMATICIAN:____________________________________

THE PUT TOGETHER GAME



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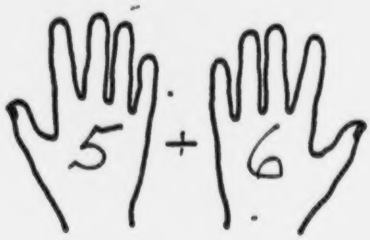

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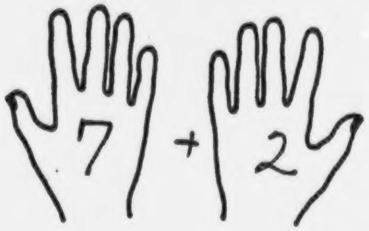

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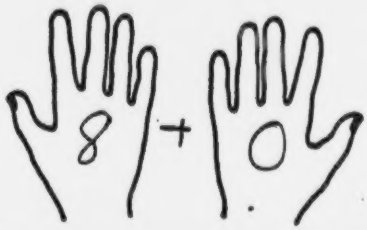

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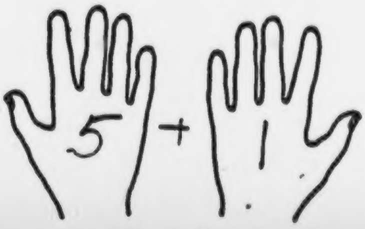

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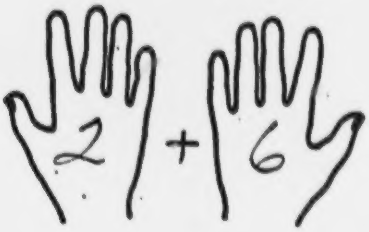
MATHEMATICIAN: ______________________________

THE PUT TOGETHER GAME



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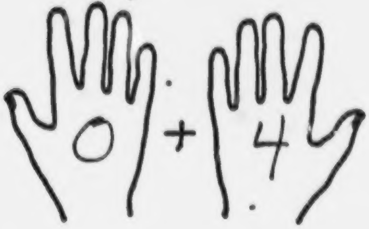

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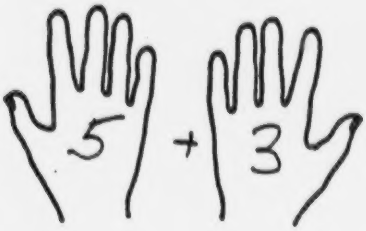

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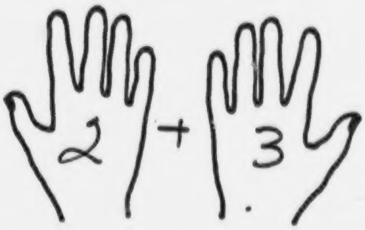

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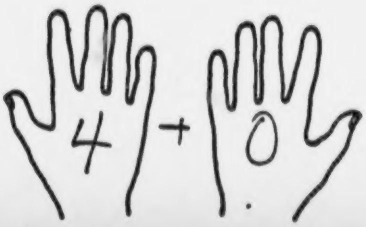

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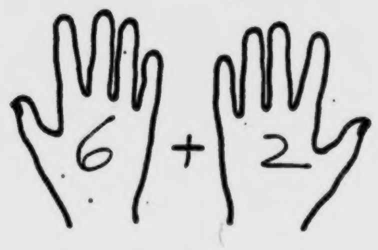
MATHEMATICIAN:________________________________

THE PUT TOGETHER GAME



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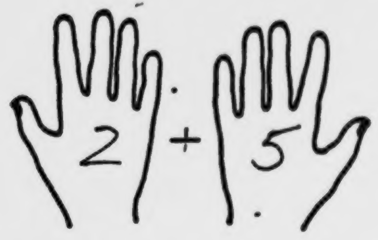

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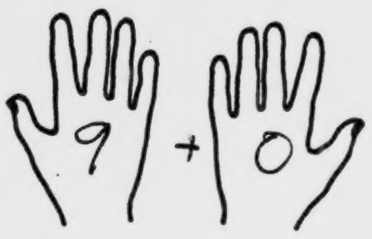

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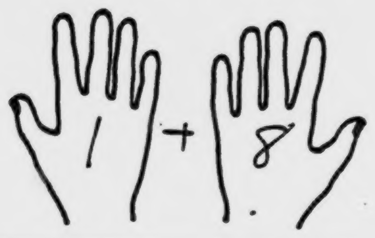

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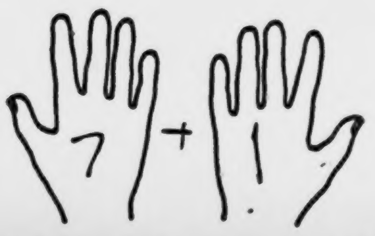

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MATHEMATICIAN:________________________________

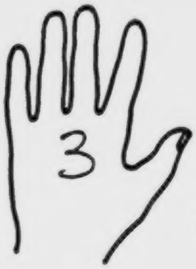
Adding and Subtracting Practice

+ 6 3	+ 5 8	+ 9 6	+ 5 6
+ 6 4	+ 7 6	+ 8 8	+ 5 7
+ 7 5	+ 4 8	+ 6 6	+ 6 8
+ 8 7	+ 3 9	+ 7 7	+ 7 9
+ 9 4	+ 5 7	+ 9 9	+ 4 7
+ 8 3	+ 9 5	+ 8 9	+ 5 8
+ 2 9	+ 8 6	+ 7 8	+ 6 9
+ 6 8	+ 7 9	+ 6 7	+ 9 9

MATHEMATICIAN: ______________________________

My Take Apart Game Record

Example:

$\boxed{9}$ − 

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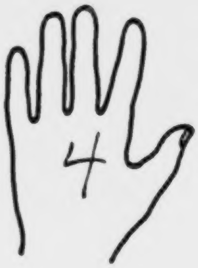
$\boxed{8}$ − 

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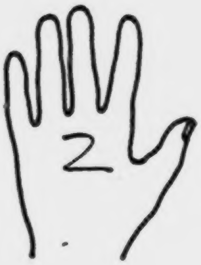
$\boxed{6}$ − 

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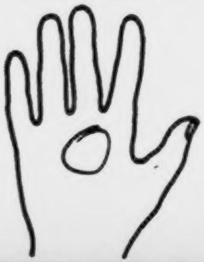
$\boxed{4}$ − 

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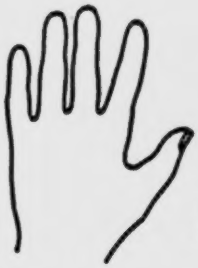
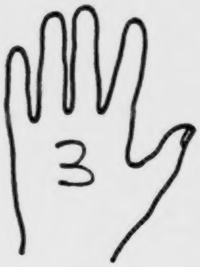
MATHEMATICIAN: ______________________________

My Take Apart Game Record

6 -  = 2

- 

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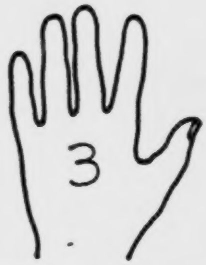
7 - 

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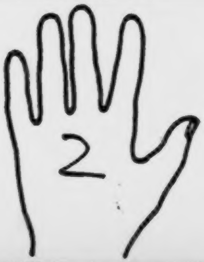
- 

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MATHEMATICIAN: ______________________________

My Take Apart Game Record

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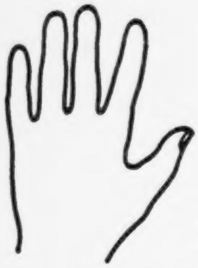
4 −  = 4

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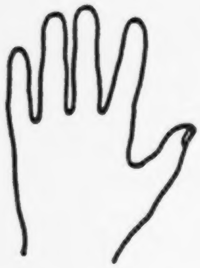
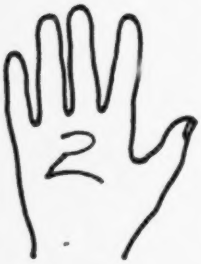
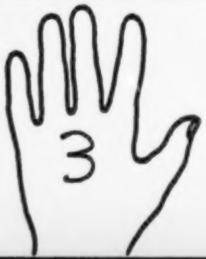
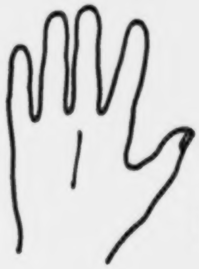
6 −  = 3

−  = 4

−  = 3

MATHEMATICIAN: ______________________

My Take Apart Game Record

9 − 

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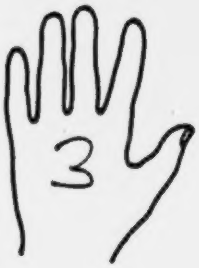
8 − 

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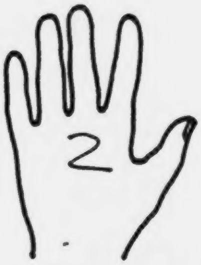
6 − 

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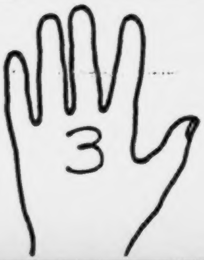
7 − 

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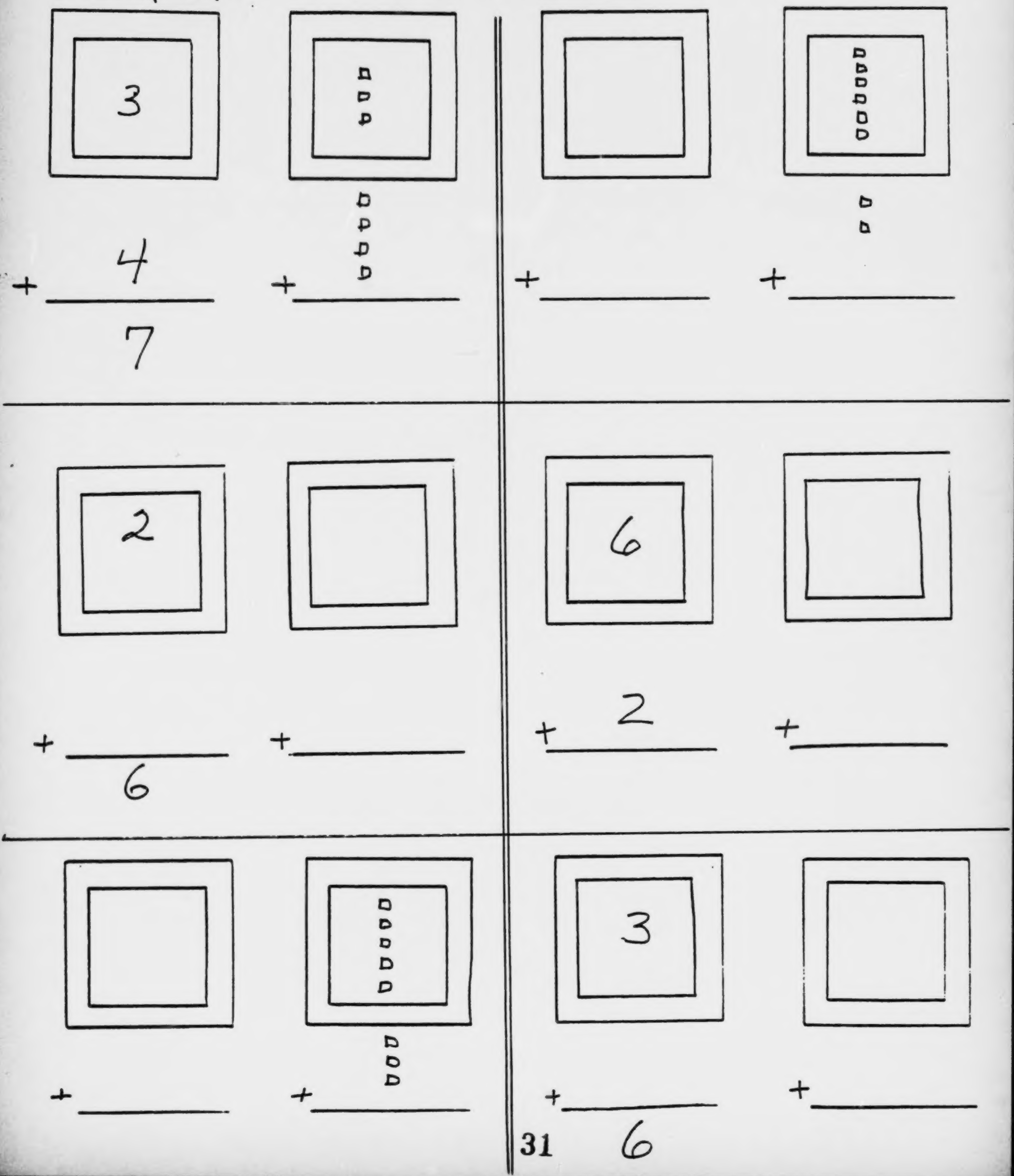
*MATHEMATICIAN:*____________________________________

My Combine Game Record

Example:



MATHEMATICIAN: ____________________

My Combine Game Record

☐ + 2 = 5

☐ + ____

3 + 0

☐ + ____

☐ + ____

□□□□□ + □□□□

☐ + ____

□□□□□□□ + □

6 + 1

☐ + ____

2 + ____ 6

☐ + ____

MATHEMATICIAN: ____________________

My Combine Game Record

+ ____________

+ ____________

+ ____________

+ ____________

+ ____________

+ ____________

+ ____________

+ ____________

+ ____________

+ ____________

+ ____________

+ ____________

*MATHEMATICIAN:*____________________________________

Finding the DIFFERENCE

Example!

$$\boxed{3} = \boxed{6} - \boxed{3}$$

DIFFERENCE

$$\boxed{2} = \boxed{7} - \boxed{}$$

DIFFERENCE

$$\boxed{} = \boxed{6} - \boxed{0}$$

DIFFERENCE

$$\boxed{5} = \boxed{5} - \boxed{}$$

DIFFERENCE

*MATHEMATICIAN:*______________________________

Finding the DIFFERENCE

8 = 9 - ☐

DIFFERENCE

2 = ☐ - 1

DIFFERENCE

4 = ☐ - 0

DIFFERENCE

3 = 7 - ☐

DIFFERENCE

*MATHEMATICIAN:*____

Finding the DIFFERENCE

$$\boxed{2} = \boxed{} - \boxed{5}$$

DIFFERENCE

$$\boxed{3} = \boxed{} - \boxed{4}$$

DIFFERENCE

$$\boxed{2} = \boxed{7} - \boxed{}$$

DIFFERENCE

$$\boxed{6} = \boxed{9} - \boxed{}$$

DIFFERENCE

MATHEMATICIAN: ____________________

Finding the DIFFERENCE

5 = ☐ - 4

DIFFERENCE

3 = ☐ - 5

DIFFERENCE

☐ = 9 - 3

DIFFERENCE

☐ = 4 - 1

DIFFERENCE

MATHEMATICIAN:____________________________________

Arrange material on your workmat to show what each sentence means. Then put a numeral in the box to complete the sentence.

$7 + 2 = \square$

$\square = 5 - 3$

$\square = 8 + 1$

$3 + 5 = \square$

$2 + \square = 6$

$\square + 3 = 7$

$4 + 3 = \square$

$4 = 3 + \square$

$9 - 3 = \square$

$4 + \square = 9$

$8 - 2 = \square$

$7 = 3 + \square$

$5 + 4 = \square$

$8 - 3 = \square$

$\square = 7 - 4$

$6 = 2 + \square$

DECODING NUMBER SENTENCES

MATHEMATICIAN:______________________________

Adding and Subtracting Practice

9 + 3	11 - 6	8 - 3	12 - 6
5 - 2	7 + 2	9 - 3	7 + 5
8 - 2	7 - 4	8 - 0	9 - 2
6 + 3	6 - 2	7 + 2	8 + 1
9 - 4	8 - 5	9 - 2	6 - 1
5 + 9	8 + 7	9 - 7	7 - 6
6 - 4	5 - 2	4 + 3	8 - 2
9 - 1	9 - 4	4 + 2	6 + 3

*MATHEMATICIAN:*____

Adding and Subtracting Practice

$\begin{array}{r} 4 \\ -\ 3 \\ \hline \end{array}$	$\begin{array}{r} 6 \\ -\ 2 \\ \hline \end{array}$	$\begin{array}{r} 8 \\ -\ 3 \\ \hline \end{array}$	$\begin{array}{r} 9 \\ -\ 9 \\ \hline \end{array}$
$\begin{array}{r} 4 \\ -\ 2 \\ \hline \end{array}$	$\begin{array}{r} 6 \\ -\ 3 \\ \hline \end{array}$	$\begin{array}{r} 8 \\ -\ 2 \\ \hline \end{array}$	$\begin{array}{r} 9 \\ -\ 6 \\ \hline \end{array}$
$\begin{array}{r} 8 \\ -\ 5 \\ \hline \end{array}$	$\begin{array}{r} 7 \\ -\ 1 \\ \hline \end{array}$	$\begin{array}{r} 6 \\ -\ 4 \\ \hline \end{array}$	$\begin{array}{r} 8 \\ -\ 7 \\ \hline \end{array}$
$\begin{array}{r} 9 \\ -\ 7 \\ \hline \end{array}$	$\begin{array}{r} 8 \\ -\ 2 \\ \hline \end{array}$	$\begin{array}{r} 5 \\ -\ 2 \\ \hline \end{array}$	$\begin{array}{r} 8 \\ -\ 8 \\ \hline \end{array}$
$\begin{array}{r} 9 \\ -\ 3 \\ \hline \end{array}$	$\begin{array}{r} 7 \\ -\ 5 \\ \hline \end{array}$	$\begin{array}{r} 4 \\ -\ 2 \\ \hline \end{array}$	$\begin{array}{r} 4 \\ -\ 4 \\ \hline \end{array}$
$\begin{array}{r} 8 \\ -\ 4 \\ \hline \end{array}$	$\begin{array}{r} 5 \\ -\ 3 \\ \hline \end{array}$	$\begin{array}{r} 3 \\ -\ 2 \\ \hline \end{array}$	$\begin{array}{r} 5 \\ -\ 4 \\ \hline \end{array}$
$\begin{array}{r} 8 \\ -\ 6 \\ \hline \end{array}$	$\begin{array}{r} 4 \\ -\ 1 \\ \hline \end{array}$	$\begin{array}{r} 2 \\ -\ 1 \\ \hline \end{array}$	$\begin{array}{r} 5 \\ -\ 5 \\ \hline \end{array}$
$\begin{array}{r} 9 \\ -\ 2 \\ \hline \end{array}$	$\begin{array}{r} 4 \\ -\ 3 \\ \hline \end{array}$	$\begin{array}{r} 8 \\ -\ 5 \\ \hline \end{array}$	$\begin{array}{r} 9 \\ -\ 1 \\ \hline \end{array}$

MATHEMATICIAN:______________________________

Adding and Subtracting Practice

$\begin{array}{r} 9 \\ + 3 \\ \hline \end{array}$	$\begin{array}{r} 11 \\ - 6 \\ \hline \end{array}$	$\begin{array}{r} 8 \\ - 3 \\ \hline \end{array}$	$\begin{array}{r} 12 \\ - 6 \\ \hline \end{array}$
$\begin{array}{r} 5 \\ - 2 \\ \hline \end{array}$	$\begin{array}{r} 7 \\ + 2 \\ \hline \end{array}$	$\begin{array}{r} 9 \\ - 3 \\ \hline \end{array}$	$\begin{array}{r} 7 \\ + 5 \\ \hline \end{array}$
$\begin{array}{r} 8 \\ - 2 \\ \hline \end{array}$	$\begin{array}{r} 7 \\ - 4 \\ \hline \end{array}$	$\begin{array}{r} 8 \\ - 0 \\ \hline \end{array}$	$\begin{array}{r} 9 \\ - 2 \\ \hline \end{array}$
$\begin{array}{r} 6 \\ + 3 \\ \hline \end{array}$	$\begin{array}{r} 6 \\ - 2 \\ \hline \end{array}$	$\begin{array}{r} 7 \\ + 2 \\ \hline \end{array}$	$\begin{array}{r} 8 \\ + 1 \\ \hline \end{array}$
$\begin{array}{r} 9 \\ - 4 \\ \hline \end{array}$	$\begin{array}{r} 8 \\ - 5 \\ \hline \end{array}$	$\begin{array}{r} 9 \\ - 2 \\ \hline \end{array}$	$\begin{array}{r} 6 \\ - 1 \\ \hline \end{array}$
$\begin{array}{r} 5 \\ + 9 \\ \hline \end{array}$	$\begin{array}{r} 8 \\ + 7 \\ \hline \end{array}$	$\begin{array}{r} 9 \\ - 7 \\ \hline \end{array}$	$\begin{array}{r} 7 \\ - 6 \\ \hline \end{array}$
$\begin{array}{r} 6 \\ - 4 \\ \hline \end{array}$	$\begin{array}{r} 5 \\ - 2 \\ \hline \end{array}$	$\begin{array}{r} 4 \\ + 3 \\ \hline \end{array}$	$\begin{array}{r} 8 \\ - 2 \\ \hline \end{array}$
$\begin{array}{r} 9 \\ - 1 \\ \hline \end{array}$	$\begin{array}{r} 9 \\ - 4 \\ \hline \end{array}$	$\begin{array}{r} 4 \\ + 2 \\ \hline \end{array}$	$\begin{array}{r} 6 \\ + 3 \\ \hline \end{array}$

*MATHEMATICIAN:*______________________________

Adding and Subtracting Practice

$\begin{array}{r} 7 \\ +\ 2 \\ \hline \end{array}$	$\begin{array}{r} 6 \\ +\ 2 \\ \hline \end{array}$	$\begin{array}{r} 4 \\ +\ 2 \\ \hline \end{array}$	$\begin{array}{r} 9 \\ +\ 7 \\ \hline \end{array}$
$\begin{array}{r} 3 \\ +\ 4 \\ \hline \end{array}$	$\begin{array}{r} 5 \\ +\ 2 \\ \hline \end{array}$	$\begin{array}{r} 6 \\ +\ 4 \\ \hline \end{array}$	$\begin{array}{r} 3 \\ +\ 7 \\ \hline \end{array}$
$\begin{array}{r} 8 \\ +\ 1 \\ \hline \end{array}$	$\begin{array}{r} 6 \\ +\ 7 \\ \hline \end{array}$	$\begin{array}{r} 2 \\ +\ 8 \\ \hline \end{array}$	$\begin{array}{r} 4 \\ +\ 6 \\ \hline \end{array}$
$\begin{array}{r} 6 \\ +\ 3 \\ \hline \end{array}$	$\begin{array}{r} 3 \\ +\ 5 \\ \hline \end{array}$	$\begin{array}{r} 7 \\ +\ 3 \\ \hline \end{array}$	$\begin{array}{r} 1 \\ +\ 9 \\ \hline \end{array}$
$\begin{array}{r} 5 \\ +\ 4 \\ \hline \end{array}$	$\begin{array}{r} 2 \\ +\ 7 \\ \hline \end{array}$	$\begin{array}{r} 7 \\ +\ 1 \\ \hline \end{array}$	$\begin{array}{r} 5 \\ +\ 3 \\ \hline \end{array}$
$\begin{array}{r} 4 \\ +\ 5 \\ \hline \end{array}$	$\begin{array}{r} 3 \\ +\ 4 \\ \hline \end{array}$	$\begin{array}{r} 5 \\ +\ 2 \\ \hline \end{array}$	$\begin{array}{r} 6 \\ +\ 7 \\ \hline \end{array}$
$\begin{array}{r} 3 \\ +\ 6 \\ \hline \end{array}$	$\begin{array}{r} 2 \\ +\ 5 \\ \hline \end{array}$	$\begin{array}{r} 5 \\ +\ 5 \\ \hline \end{array}$	$\begin{array}{r} 5 \\ +\ 6 \\ \hline \end{array}$

Mathematician: ______________________________

NUMBER SENTENCE	COMPUTATION FORM
Example: $6 = 4 + 2$	$\begin{array}{c}\boxed{4}\\ \boxed{2}\\ \hline \boxed{6}\end{array}$
	$\begin{array}{c}\boxed{5}\\ \boxed{4}\\ \hline \boxed{}\end{array}$
$7 + 8 = \square$	$\begin{array}{c}\boxed{}\\ \boxed{}\\ \hline \boxed{}\end{array}$
	$\begin{array}{c}\boxed{6}\\ \boxed{3}\\ \hline \boxed{}\end{array}$
$\square = 8 + 1$	$\begin{array}{c}\boxed{}\\ \boxed{}\\ \hline \boxed{}\end{array}$

COMPUTATION FORMS: LESSON ONE

Mathematician:____

NUMBER SENTENCE	COMPUTATION FORM
$\boxed{} = 3 + 5$	$\begin{array}{c}\boxed{}\\ \boxed{}\\ \hline \boxed{}\end{array}$
	$\begin{array}{c}\boxed{6}\\ \boxed{1}\\ \hline \boxed{}\end{array}$
	$\begin{array}{c}\boxed{5}\\ \boxed{3}\\ \hline \boxed{}\end{array}$
$2 + 8 = \boxed{}$	$\begin{array}{c}\boxed{}\\ \boxed{}\\ \hline \boxed{}\end{array}$
	$\begin{array}{c}\boxed{8}\\ \boxed{7}\\ \hline \boxed{}\end{array}$

Mathematician: ______________________________

NUMBER SENTENCE	COMPUTATION FORM
$9 + 6 = \square$	$\begin{array}{r} \square \\ \square \\ \hline \square \end{array}$
	$\begin{array}{r} \boxed{8} \\ + \boxed{9} \\ \hline \square \end{array}$
$\square = 3 + 8$	$\begin{array}{r} \square \\ \square \\ \hline \square \end{array}$
$6 + 5 = \square$	$\begin{array}{r} \square \\ \square \\ \hline \square \end{array}$
	$\begin{array}{r} \boxed{8} \\ + \boxed{8} \\ \hline \boxed{16} \end{array}$

Mathematician: ______________________________

NUMBER SENTENCE	COMPUTATION FORM
	$\begin{array}{r} \boxed{9} \\ -\ \boxed{6} \\ \hline \square \end{array}$
$7 + 7 = \square$	$\begin{array}{r} \square \\ \square \\ \hline \square \end{array}$
	$\begin{array}{r} \boxed{2} \\ +\ \boxed{10} \\ \hline \square \end{array}$
$\square = 3 + 11$	$\begin{array}{r} \square \\ \square \\ \hline \square \end{array}$
$7 + 4 = \square$	$\begin{array}{r} \square \\ \square \\ \hline \square \end{array}$

Mathematician:______________________________

NUMBER SENTENCE	COMPUTATION FORM
$8 + 2 = \square$	$\begin{array}{r}\square\\ \square\\ \hline \square\end{array}$
	$\begin{array}{r}\boxed{9}\\ +\boxed{5}\\ \hline \square\end{array}$
$\square = 8 - 6$	$\begin{array}{r}\boxed{8}\\ -\boxed{6}\\ \hline \square\end{array}$
	$\begin{array}{r}\boxed{9}\\ -\boxed{3}\\ \hline \square\end{array}$
$11 - 4 = \square$	$\begin{array}{r}\square\\ \square\\ \hline \square\end{array}$

Mathematician:________________________________

NUMBER SENTENCE	**COMPUTATION FORM**
EXAMPLE: $3 + 6 = \boxed{9}$	$\begin{array}{r} \boxed{3} \\ + \ \boxed{6} \\ \hline \boxed{9} \end{array}$
☐ = 8 − 3	$\begin{array}{r} \square \\ \square \\ \hline \square \end{array}$
	$\begin{array}{r} \boxed{7} \\ - \ \boxed{2} \\ \hline \square \end{array}$
7 − 4 = ☐	$\begin{array}{r} \square \\ \square \\ \hline \square \end{array}$
	$\begin{array}{r} \boxed{9} \\ - \ \boxed{1} \\ \hline \square \end{array}$

Mathematician: ______________________________

NUMBER SENTENCE	COMPUTATION FORM
Example! $\boxed{5} + \boxed{4} = \boxed{9}$	$\begin{array}{r} 5 \\ +\ 4 \\ \hline 9 \end{array}$
☐ ☐ ☐	$\begin{array}{r} 6 \\ +\ 3 \\ \hline \end{array}$
☐ ☐ ☐	$\begin{array}{r} 8 \\ -\ 6 \\ \hline \end{array}$
$\boxed{} = \boxed{9} - \boxed{2}$	

Mathematician: ____________________

NUMBER SENTENCE	COMPUTATION FORM
$\boxed{} = \boxed{8} + \boxed{5}$	
$\boxed{} \quad \boxed{} \quad \boxed{}$	$\begin{array}{r} 7 \\ +\ 8 \\ \hline \end{array}$
$\boxed{9} + \boxed{6} = \boxed{}$	
$\boxed{15} = \boxed{8} + \boxed{}$	

Mathematician: ______________________________

NUMBER SENTENCE	COMPUTATION FORM
$\boxed{9} = \boxed{4} + \boxed{}$	
$\boxed{} \quad \boxed{} \quad \boxed{}$	$\begin{array}{r} 9 \\ - \boxed{} \\ \hline 4 \end{array}$
$\boxed{} \quad \boxed{} \quad \boxed{}$	$\begin{array}{r} 6 \\ + \boxed{} \\ \hline 12 \end{array}$
$\boxed{} = \boxed{9} + \boxed{3}$	

Mathematician: ____________________

NUMBER SENTENCE	COMPUTATION FORM
$\boxed{6} = \boxed{9} - \boxed{}$	
$\boxed{7} + \boxed{} = \boxed{11}$	
$\boxed{} \quad \boxed{} \quad \boxed{}$	$\begin{array}{r} 4 \\ + \boxed{} \\ \hline 9 \end{array}$
$\boxed{} \quad \boxed{} \quad \boxed{}$	$\begin{array}{r} 6 \\ - 2 \\ \hline \end{array}$

Mathematician: ______________________________

NUMBER SENTENCE	COMPUTATION FORM
$\boxed{10} = \boxed{5} + \boxed{5}$	
$\square \quad \square \quad \square$	$\begin{array}{r} 12 \\ -\ \square \\ \hline 7 \end{array}$
$\square \quad \square \quad \square$	$\begin{array}{r} 10 \\ -\ \square \\ \hline 8 \end{array}$
$\boxed{9} = \boxed{12} - \square$	

MATHEMATICIAN: ______________________________

MY EQUALITY NUMBER SENTENCES

LEFT SIDE		RIGHT SIDE
Example: 3 + 3 + 6	=	4 + 4 + 4
	=	
	=	
	=	
	=	

MATHEMATICIAN:__________________________________

MY EQUALITY NUMBER SENTENCES

LEFT SIDE		RIGHT SIDE
$2 + 4 + \square$	$=$	$3 + 6 + 1$
$5 + 3 + 2 + 1$	$=$	$4 + 2 + \square$
$7 + 1 + 1 + \square$	$=$	$6 + 6$
$5 + 2 + \square$	$=$	$6 + 3 + 2$
$7 + 5 + 3$	$=$	$8 + 1 + \square$

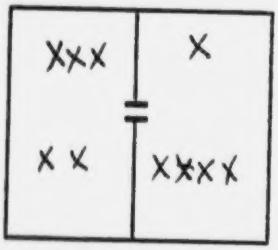
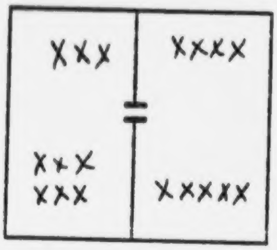
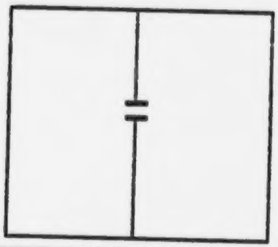
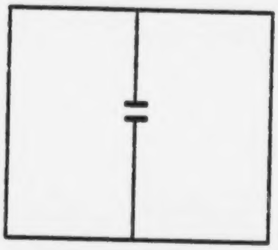
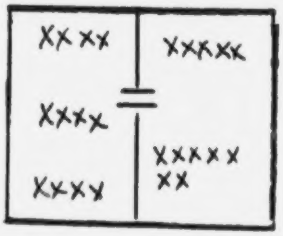
MATHEMATICIAN: ______________________________

MY EQUALITY NUMBER SENTENCES

LEFT SIDE		RIGHT SIDE
8 + 1+1+1	=	2 + ☐
5+3+ 2	=	2 + 3 + ☐
1 + 1 + 4 + 2	=	5 + 2 + ☐
6 + 2 + 2	=	☐ + 5
☐ + 2 + 1 + 5	=	6 + 4 + 2

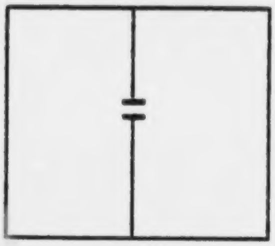
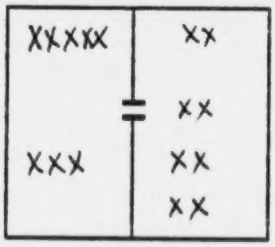
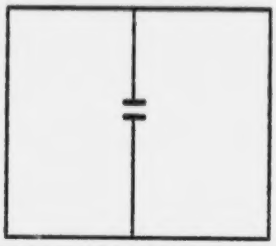
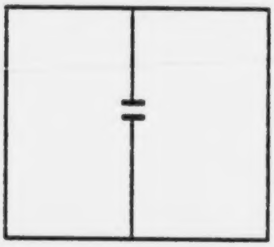
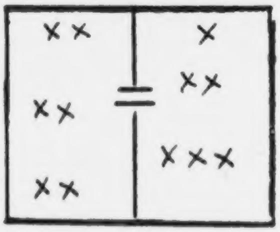
MATHEMATICIAN: ______________________________

EQUALITY RECORD 1A

Equality Board	Number Sentences
Example:  XXX X = XX XXXX	5+3 = 4+1 3+5 = 1+4 5+3 = 1+4 3+5 = 4+1
 XXX XXXX = XXX XXX XXXXX	
	7+2 = 4+3
	4+8 = 6+6
 XXXX XXXXX = XXXX XXXXX XX XXXX	

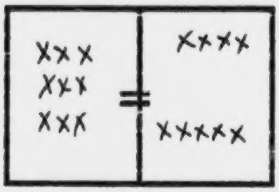
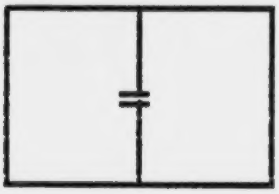
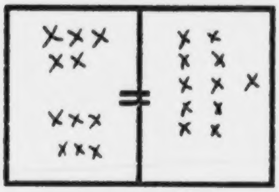
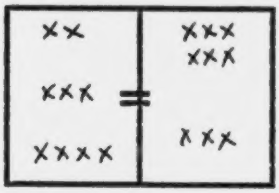
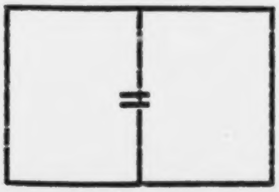
MATHEMATICIAN: ______________________

EQUALITY RECORD 1A

Equality Board	Number Sentences
	$3+2 = 4+1$
	
	$5+6 = 2+3+4+2$
	$1+2+3+4 = 8+2$
	

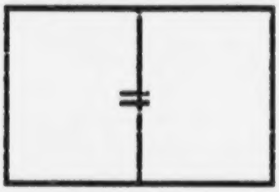
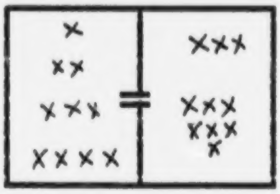
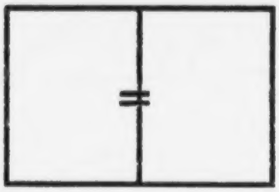
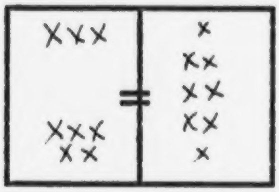
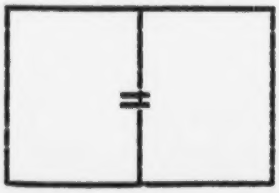
MATHEMATICIAN:____

MY EQUALITY BOARD RECORDS

NUMBER SENTENCES	EQUALITY BOARD
	
8+4 = 5+7	
	
	
1+2+3 = 4+2	

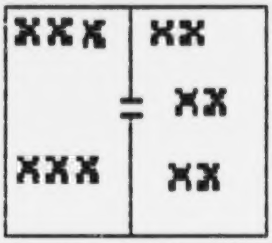
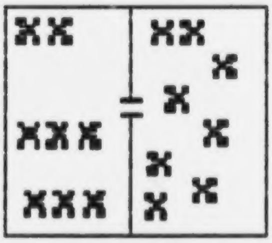
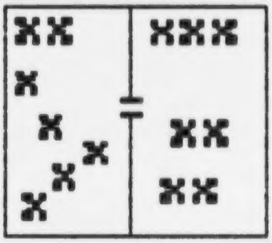
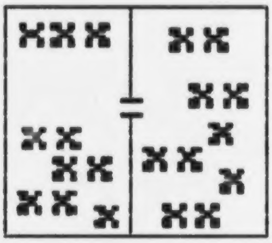
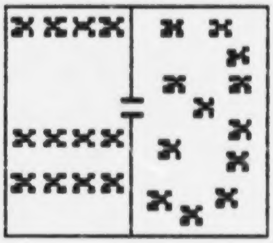
MATHEMATICIAN:____________________________________

MY EQUALITY BOARD RECORDS

NUMBER SENTENCES	EQUALITY BOARD
$5+4+3 = 6+6$	
	
$4+3 = 2+2+2+1$	
	
$3+3+3+1 = 5+5$	

*MATHEMATICIAN:*______________________________

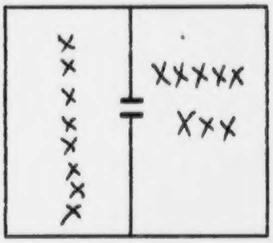
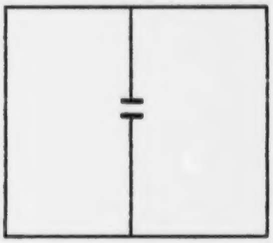
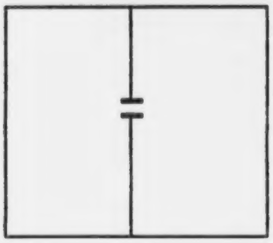
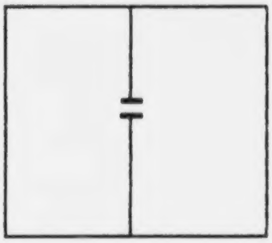
EQUALITY RECORD 1

Equality Board	Number Sentences
	
	
	
	
	

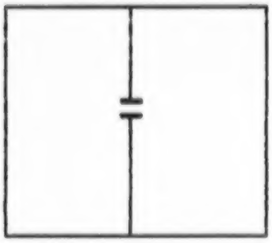
MATHEMATICIAN: ______________________________

EQUALITY RECORD 2

Example!

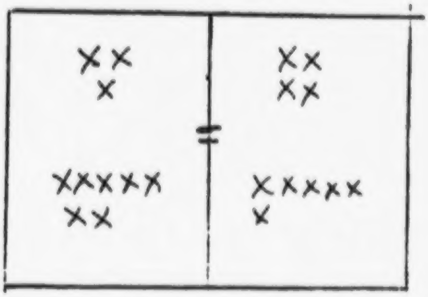
Number Sentence	**Equality Board**
8 = 5 + 3	
9 + 4 = 3	
22 = 15 + 4 + 3	
1 + 2 3 = 6	

$27 = 8 + 9 + 10$



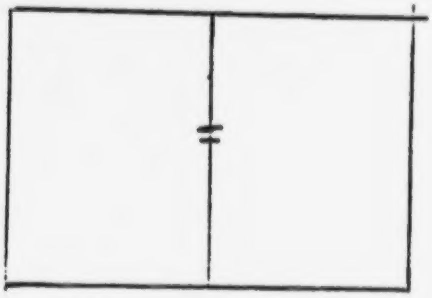
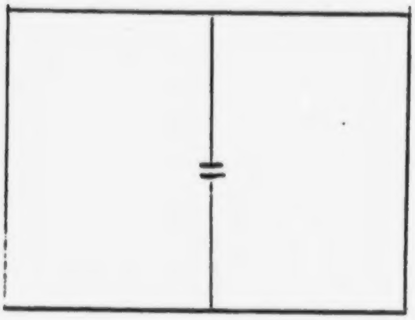
MATHEMATICIAN: ____________________

The Same Number - Many Ways

NUMBER	PICTURE	NUMBER SENTENCES
Example! Ten		3 + 7 = 4 + 6 7 + 3 = 4 + 6 3 + 7 = 6 + 4 7 + 3 = 6 + 4
TEN	=	
TEN	=	

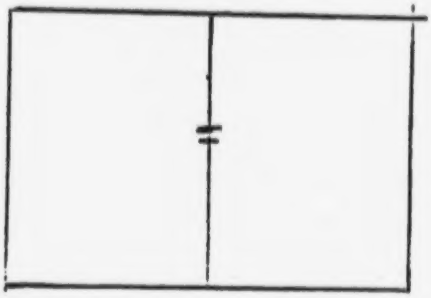
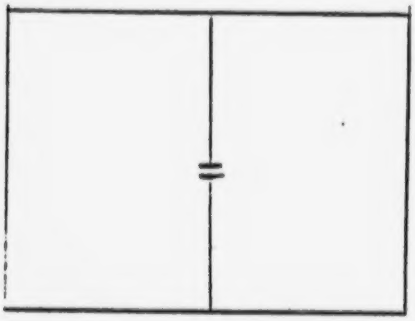
MATHEMATICIAN: ______________________

The Same Number - Many Ways

NUMBER	PICTURE	NUMBER SENTENCES
NINE		
NINE		
ELEVEN		

MATHEMATICIAN: ______________________________

The Same Number - Many Ways

NUMBER	PICTURE	NUMBER SENTENCES
ELEVEN		
TWELVE		
TWELVE		

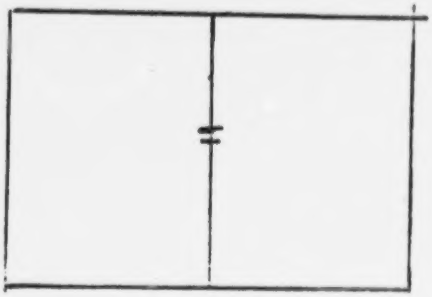
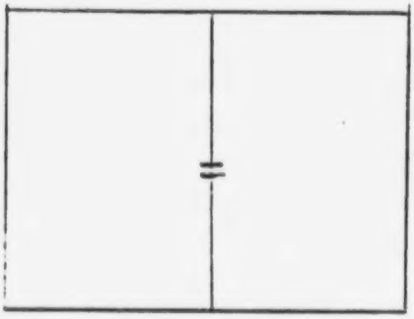
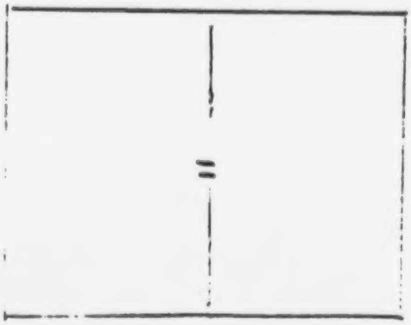
MATHEMATICIAN: ______________________________

The Same Number - Many Ways

NUMBER	PICTURE	NUMBER SENTENCES
EIGHT	=	______ ______ ______
EIGHT	=	______ ______ ______
THIRTEEN	=	______ ______ ______

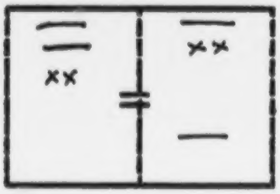
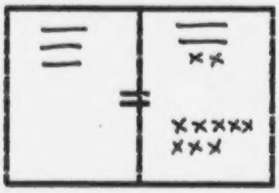
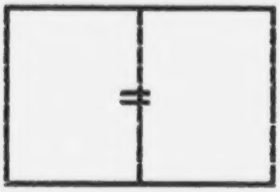
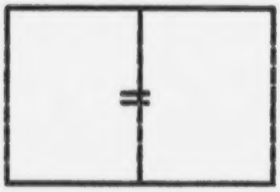
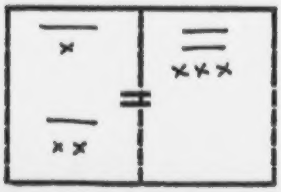
MATHEMATICIAN: ____________________

The Same Number - Many Ways

NUMBER	PICTURE	NUMBER SENTENCES
THIRTEEN		
THIRTEEN		
EIGHT		

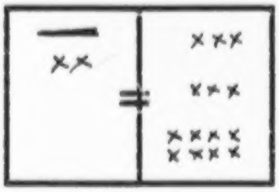
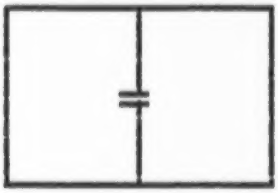
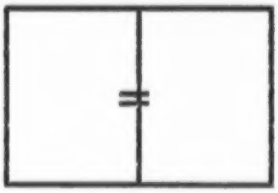
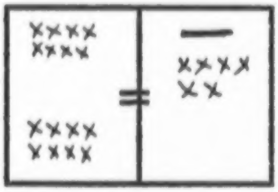
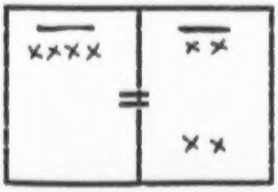
MATHEMATICIAN:____

MY EQUALITY BOARD RECORDS

EQUALITY BOARD	NUMBER SENTENCES
	
	
	20 = 12 + 8
	7+ 15 = 22
	

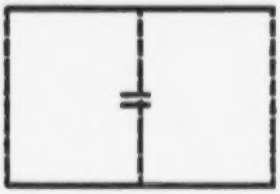
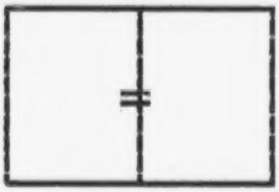
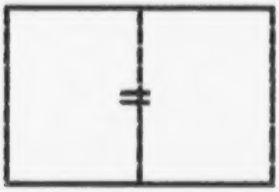
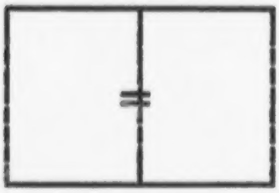
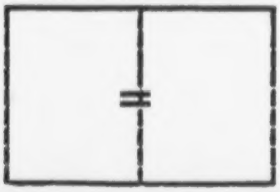
MATHEMATICIAN:____________________________________

MY EQUALITY BOARD RECORDS

NUMBER SENTENCES	EQUALITY BOARD
Example: 12 = 3 + 3 + 6	
11 = 2 + 3 + 6	
1 + 3 + 4 + 5 = 13	
	
	

MATHEMATICIAN: ____________________

MY EQUALITY BOARD RECORDS

EQUALITY BOARD	NUMBER SENTENCES
	
	
	
	
	

MATHEMATICIAN: ______________________

My Record of 3 : 1

No. of Links Used	Color A	Color B	Ratio

Correspondences: LESSON one

*MATHEMATICIAN:*____________________________

My Record of 3 : 4

No. of Links Used	Color A	Color B	Ratio

MATHEMATICIAN: ____________________________

My Record of 3 : 2

No. of Links Used	Color A	Color B	Ratio

MATHEMATICIAN: ____________________

My Record of 2 : 3

No. of Links Used	Color A	Color B	Ratio
1	2	3	2:3
3			
			7:[illegible]
5	10		
			12:18
7			
8			
9			
10			
11			

MATHEMATICIAN:______________________________

My Cuisenaire Rod Fractions

1. Find A rod for the outline.
2. Find another rod that is ONE HALF of this one.
3. Color ONE HALF of the outline the same color as the ONE HALF rod.
4. Write the word for the rod after ONE HALF = , if you can.

ONE HALF =

ONE HALF =

ONE HALF =

ONE HALF =

ONE HALF =

ONE HALF =

ONE HALF =

ONE HALF =

ONE HALF =

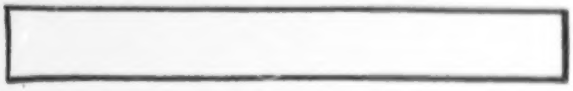
ONE HALF =

FRACTIONS: LESSON TWO

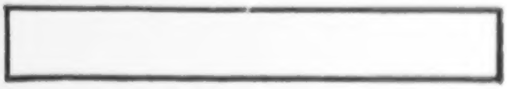
MATHEMATICIAN: ______________________________

ONE THIRD =

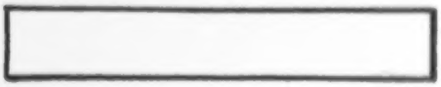
ONE THIRD =



ONE THIRD =

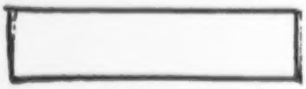


ONE THIRD =



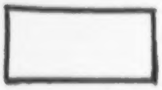
ONE THIRD =

ONE THIRD =

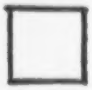


ONE THIRD =

ONE THIRD =



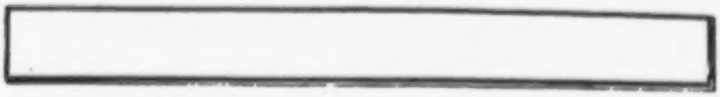
ONE THIRD =



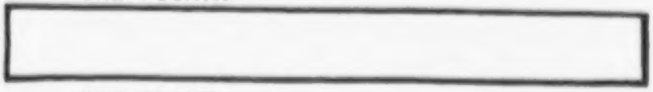
ONE THIRD =

FRACTIONS: LESSON THREE

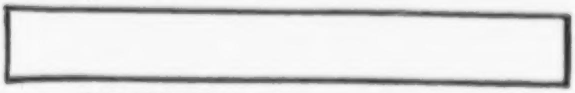
MATHEMATICIAN: ______________________________



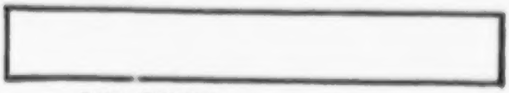
ONE FOURTH =



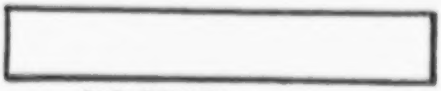
ONE FOURTH =



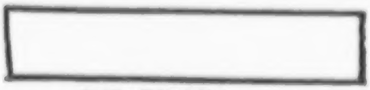
ONE FOURTH =



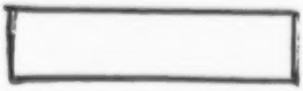
ONE FOURTH =



ONE FOURTH =

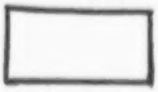


ONE FOURTH =

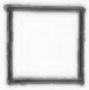


ONE FOURTH =

ONE FOURTH =

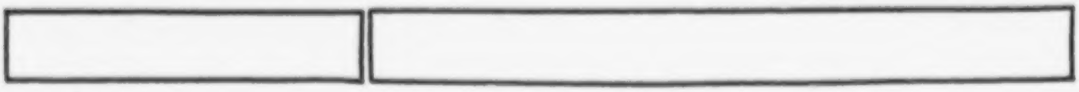


ONE FOURTH =



ONE FOURTH =

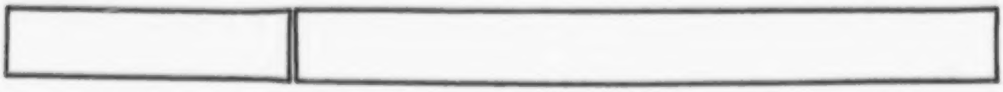
*MATHEMATICIAN:*______________________________ Pg. 4



ONE HALF =

ONE THIRD =

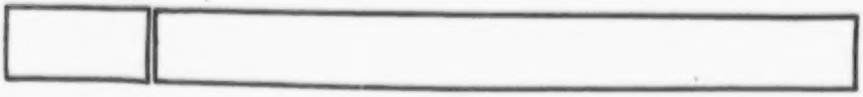
ONE FOURTH =



ONE HALF =

ONE THIRD =

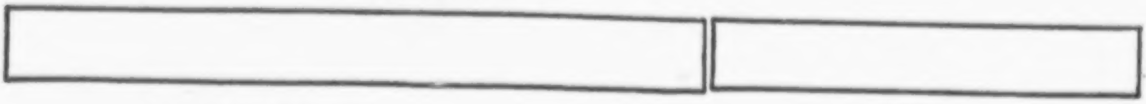
ONE FOURTH =



ONE HALF =

ONE THIRD =

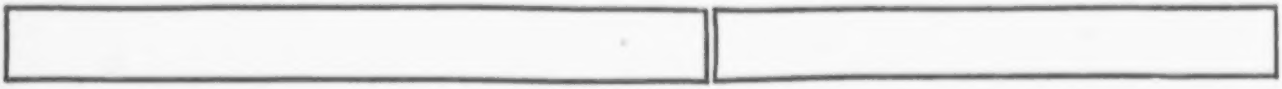
ONE FOURTH =



ONE HALF =

ONE THIRD =

ONE FOURTH =



ONE HALF =

ONE THIRD =

ONE FOURTH =

*MATHEMATICIAN:*________________________________

Cuisenaire Rods

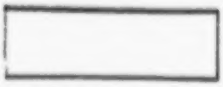
Beneath each rod outline, trace the rod that is one third of it. Color in both.

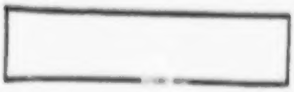
If you can't find a rod that works, write NONE.

Example:

THIRD None

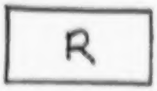
THIRD: NONE

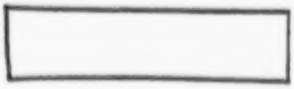


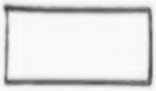


THIRD:

HALF:

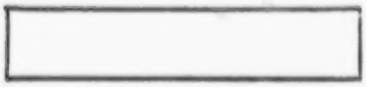






THIRD:

HALF:

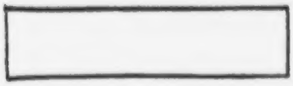


THIRD:

HALF:

FRACTIONS LESSON THREE and FOUR PRACTICE

THIRD:

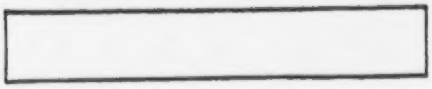


HALF:

THIRD:

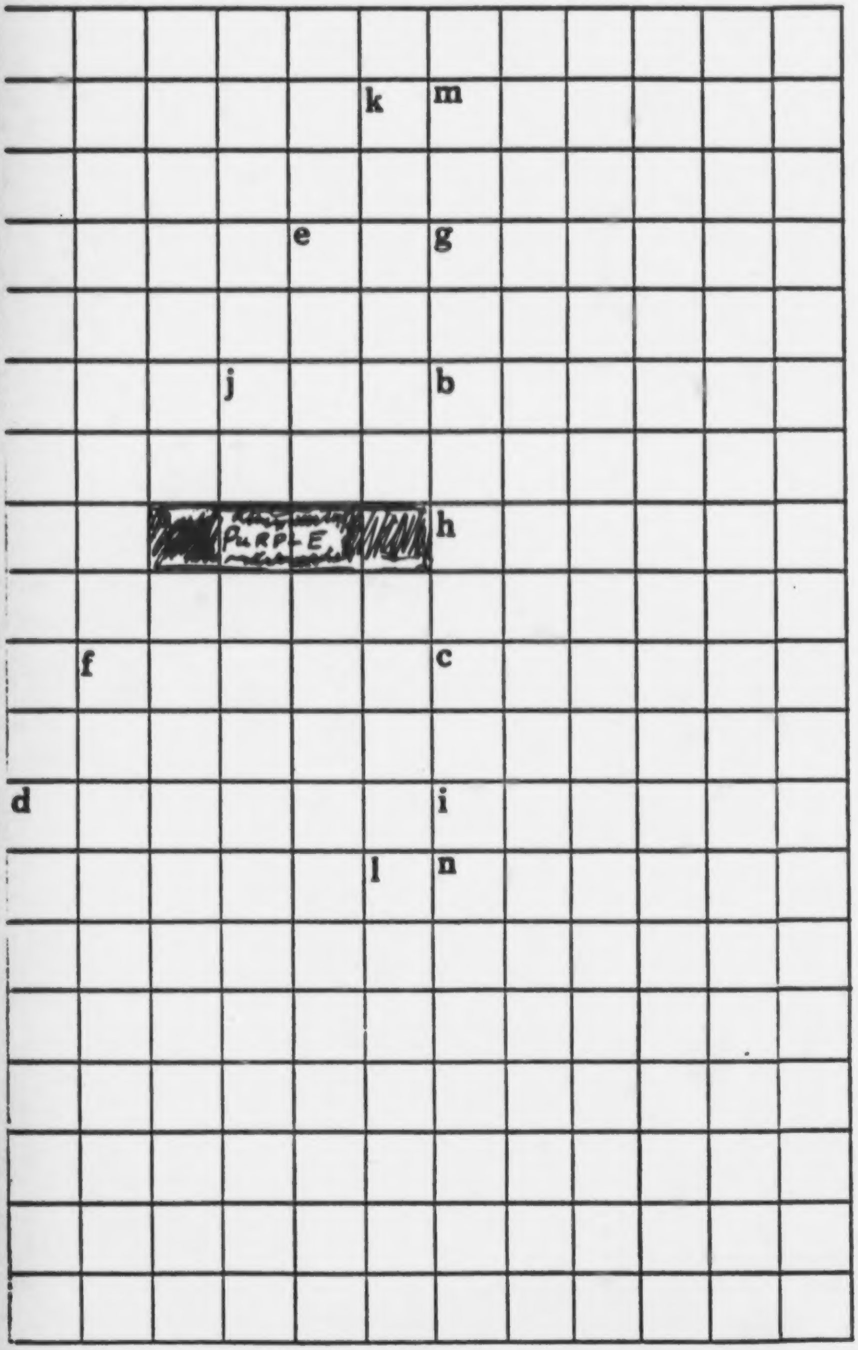
HALF:

THIRD:



HALF:

MATHEMATICIAN:______________________________


k
m
e
g
j
b
PURPLE
h
f
c
d
i
l
n

Rule: White = 1

ACROSS

a) 1/2 x 8 = _____

b) 1/2 x 6 = _____

c) 1/3 x 15 = _____

d) 1/2 x 12 = _____

e) 1/3 x 6 = _____

f) 1/2 x 10 = _____

g) 1/4 x 8 = _____

h) 1/3 x 12 = _____

i) 1/2 x 12 = _____

j) 1/3 x 9 = _____

DOWN

k) 1/4 x 4 = _____

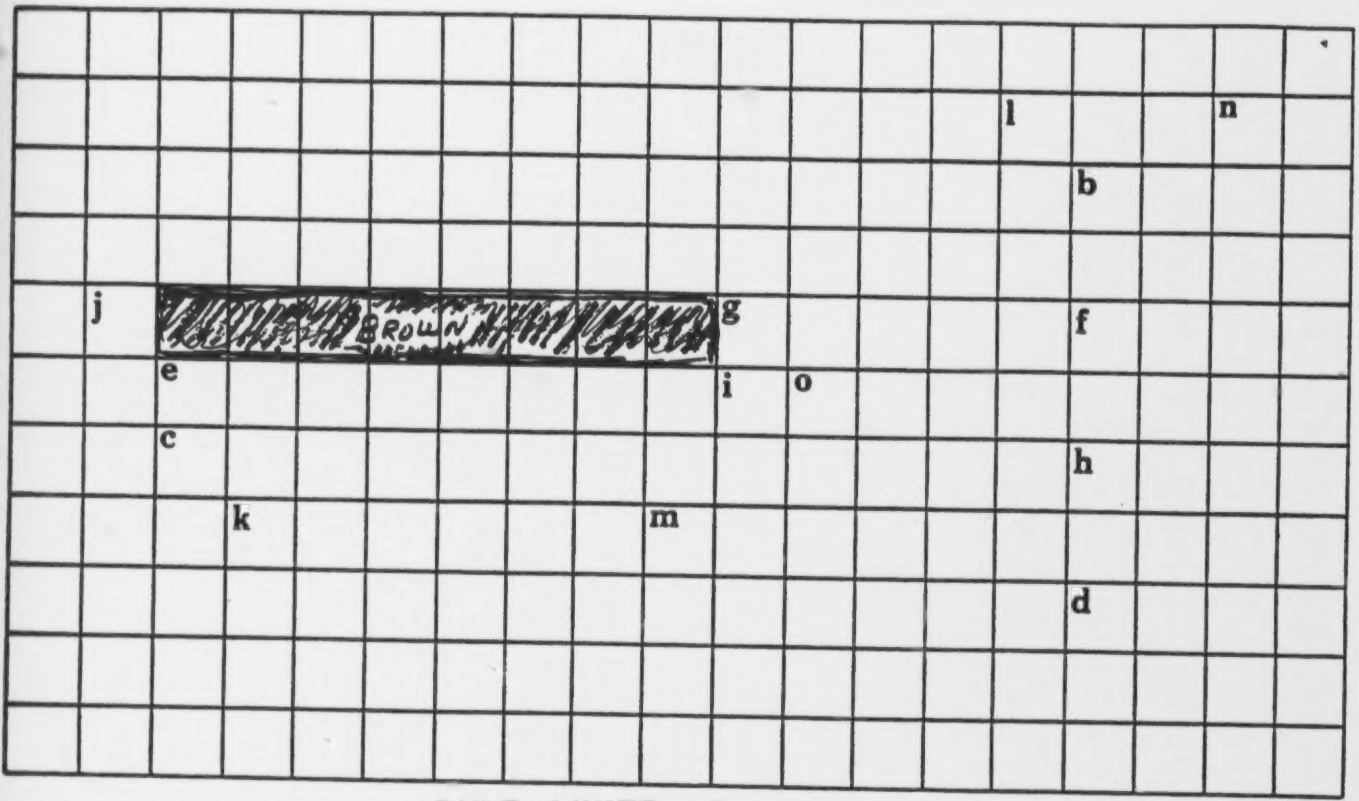
l) 1/5 x 10 = _____

m) 1/3 x 3 = _____

n) 1/4 x 8 = _____

ROD WORK AREA

MATHEMATICIAN:________________________________


l
n
b
j
BROWN
g
f
e
i
o
c
h
k
m
d

RULE: WHITE = 1

ACROSS

a) 1/2 x 16 = _____

b) 1/2 x 4 = _____

c) 1/2 x _____ = 4

d) 6 x 1/3 = _____

e) 16 x 1/2 = _____

f) 1/4 x 8 = _____

g) 1/5 x 5 = _____

h) 1/6 x 12 = _____

DOWN

i) 1/4 x 8 = _____

j) 1/3 x 9 = _____

k) 1/4 x 4 = _____

l) 1/3 x _____ = 3

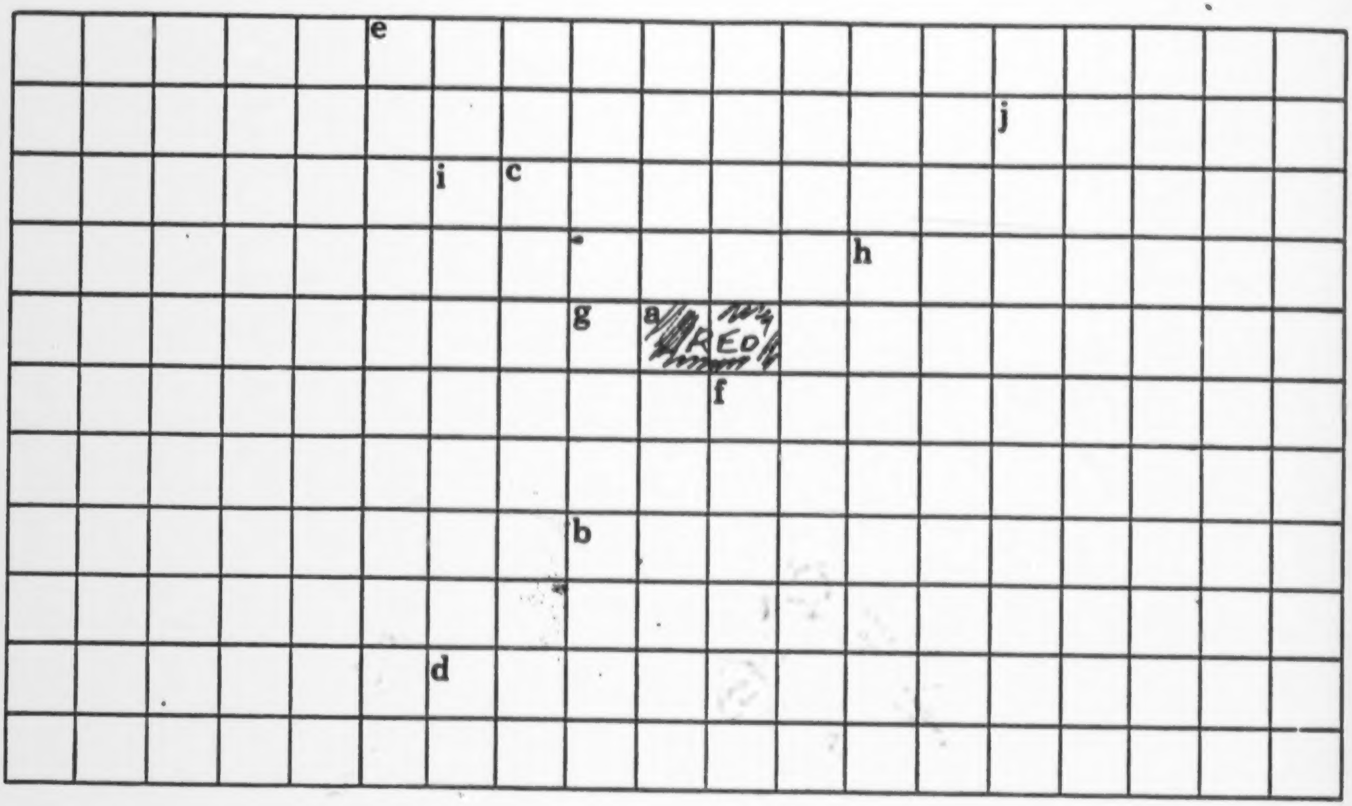
m) 1/5 x 5 = _____

n) _____ x 1/3 = 3

o) 1/4 x 8 = _____

ROD WORK AREA

MATHEMATICIAN:______________________________


e
j
i
c
h
g
a
RED
f
b
d

RULE: WHITE = 1

ACROSS

a) 1/3 x 6 = ____

b) 1/3 x 12 = ____

c) 1/3 x 18 = ____

d) 1/3 x 24 = ____

e) 1/3 x 30 = ____

DOWN

f) 1/3 x 3 = ____

g) 1/3 x 9 = ____

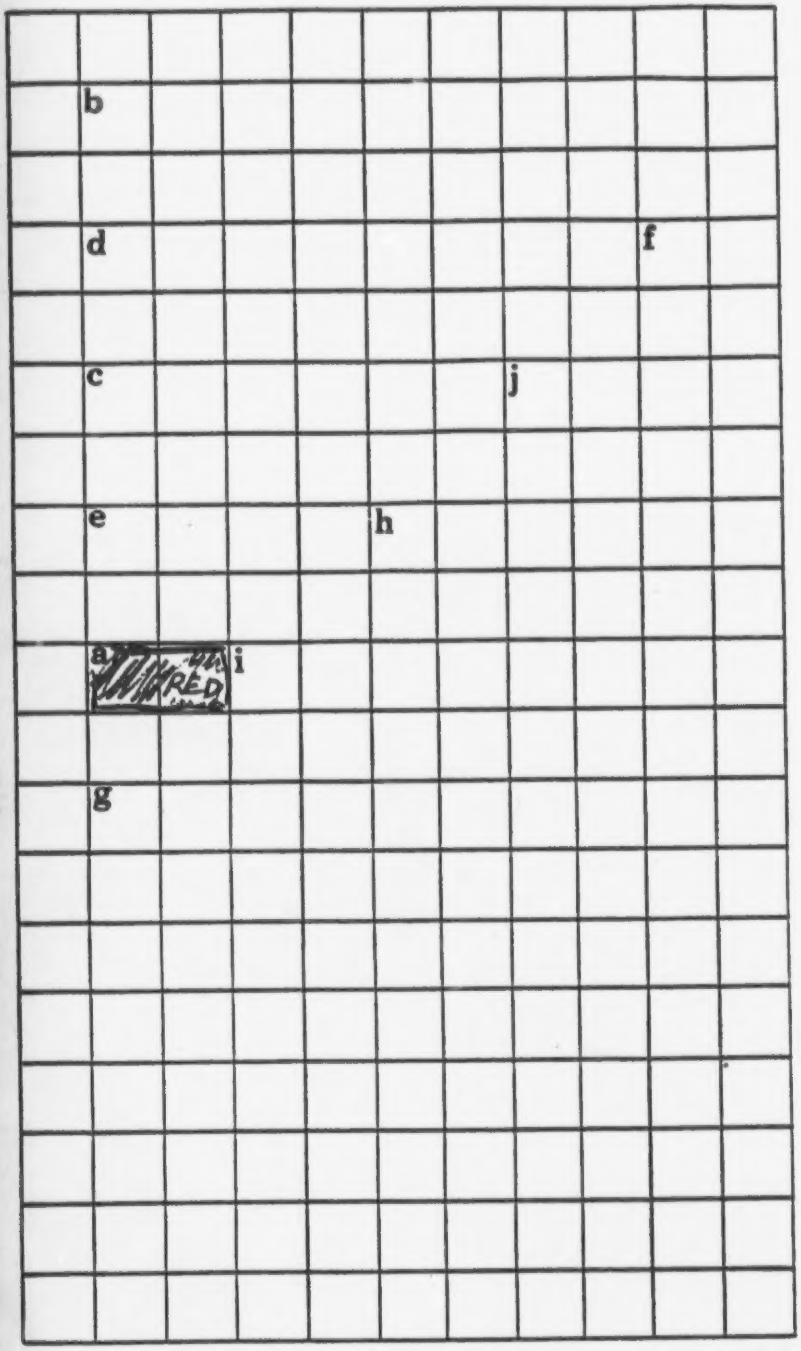
h) 1/3 x 15 = ____

i) 1/3 x 21 = ____

j) 1/3 x 27 = ____

ROD WORK AREA

MATHEMATICIAN:______________________________


b
d
f
c
j
e
h
a
RED
i
g

RULE: WHITE = 1

ACROSS

a) 1/2 x 4 = ____

b) 1/2 x 20 = ____

c) 1/2 x 12 = ____

d) 1/2 x 16 = ____

e) 1/2 x 8 = ____

DOWN

f) 1/2 x 18 = ____

g) 1/2 x 2 = ____

h) 1/2 x 10 = ____

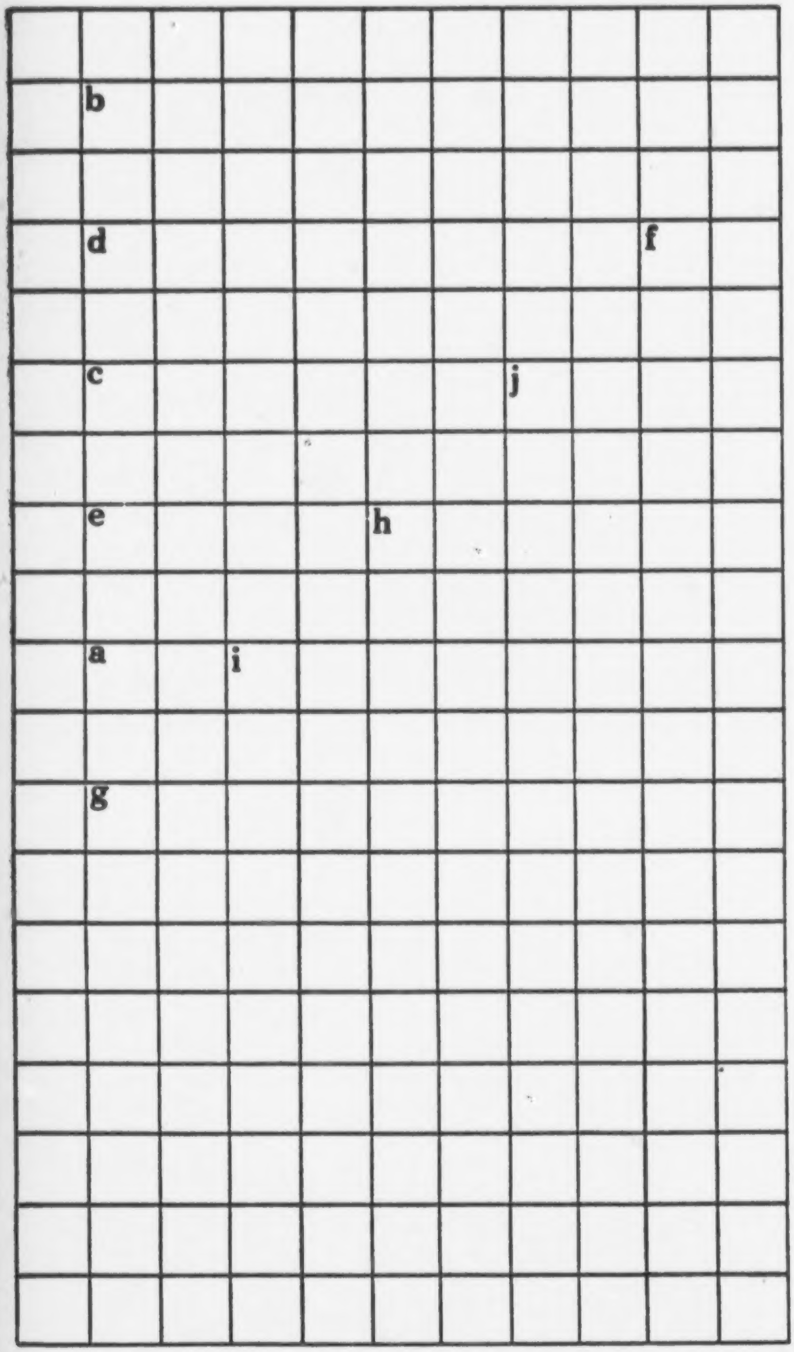
i) 1/2 x 6 = ____

j) 1/2 x 14 = ____

ROD WORK AREA

A COMMERCIAL CUISENAIRE ROD ACTIVITY
Source: Picture Puzzles with Cuisenaire Rods

Turning Corners



Rule: White = 1

ACROSS

a) ½ × 4 = ____
b) ½ × 20 = ____
c) ½ × 12 = ____
d) ½ × 16 = ____
e) ½ × 8 = ____

DOWN

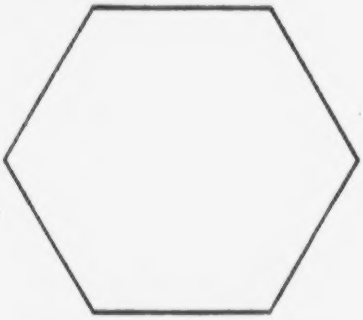
f) ½ × 18 = ____
g) ½ × 2 = ____
h) ½ × 10 = ____
i) ½ × 6 = ____
j) ½ × 14 = ____

ROD WORK AREA

Mathematician: ______________________________

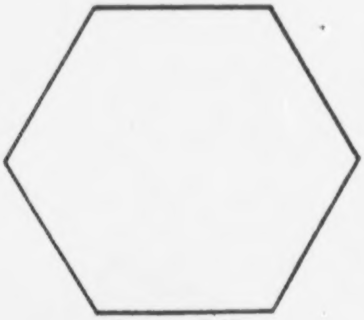
Working with Fractions

Cover the figure with blue shapes.

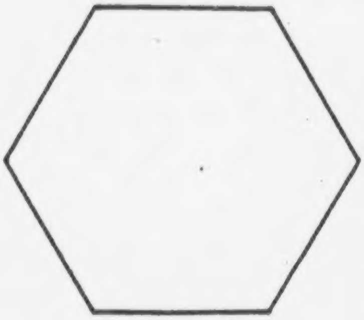


How many did you use? The blue shape is ☐ of the whole.
(fraction)

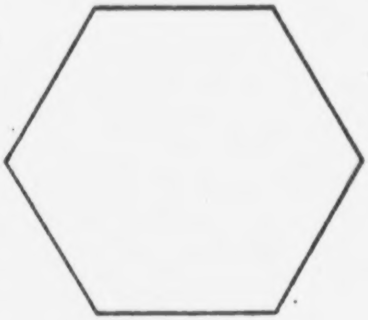
For each, cover as asked



Cover 1/3



Cover 2/3

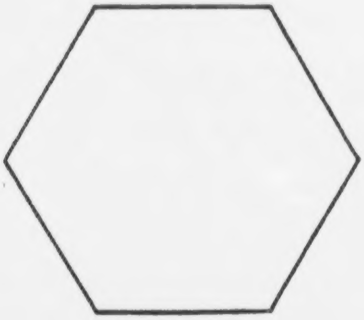


Cover 3/3

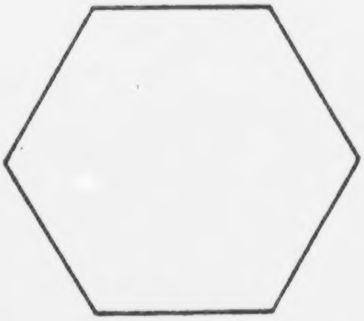
Cover the shape above with green shapes. How many did you use? ________

The green shape is ☐ of the whole.
(fraction)

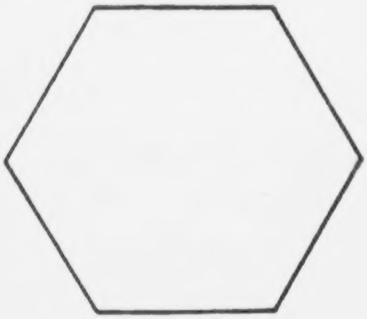
For each, cover as asked



Cover 1/6



Cover 2/6

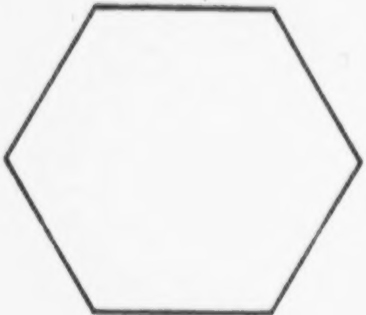


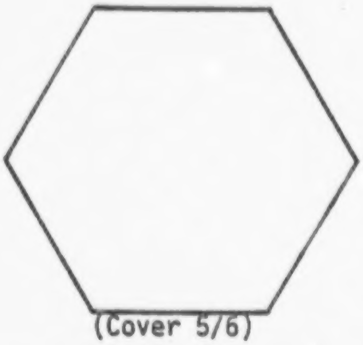
Cover 3/6

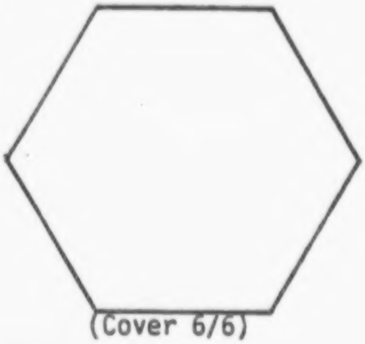
What is another name for 2/6? __________

FRACTIONS 2

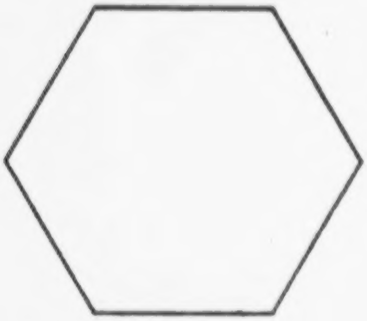
Mathematician:____________________________________

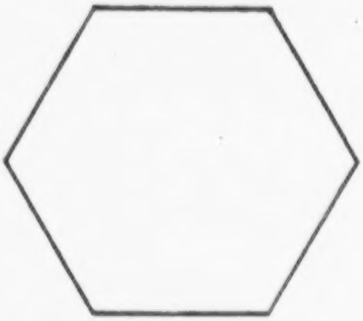

(Cover 4/6)

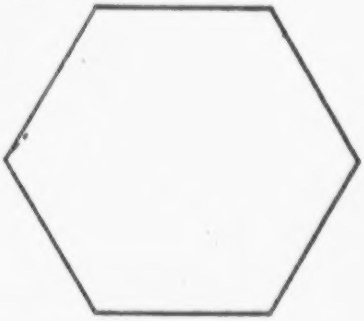

(Cover 5/6)

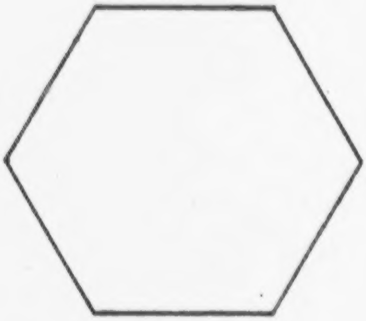

(Cover 6/6)

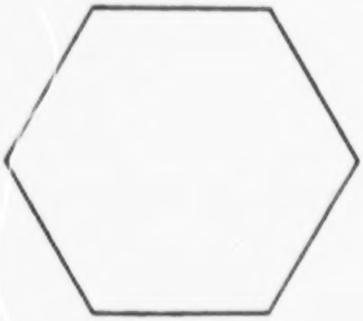
Use the yellow shape with green pieces to complete the sentences:

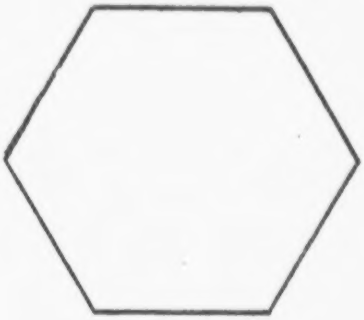

1/6 + 1/6 = __________


1/6 + 2/6 = __________

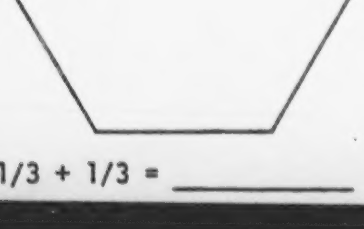

2/6 + 2/6 = __________


1/6 + 3/6 = __________


2/6 + 3/6 = __________


3/6 + 3/6 = __________

Use the yellow shape with green to complete the sentences:


1/3 + 1/3 = __________

1/3 + 2/3 = __________

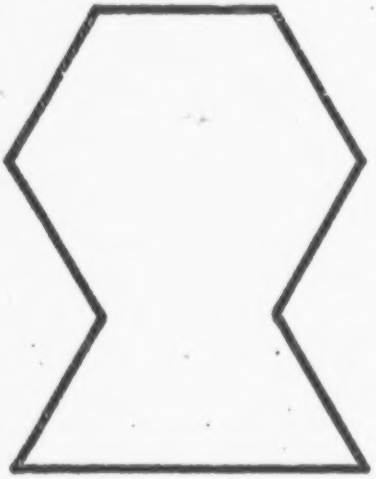
Mathematician:______________________________

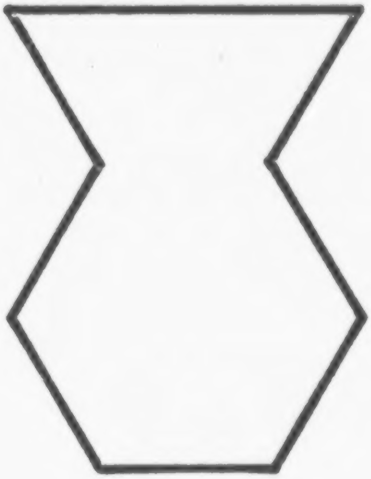
More Fractions

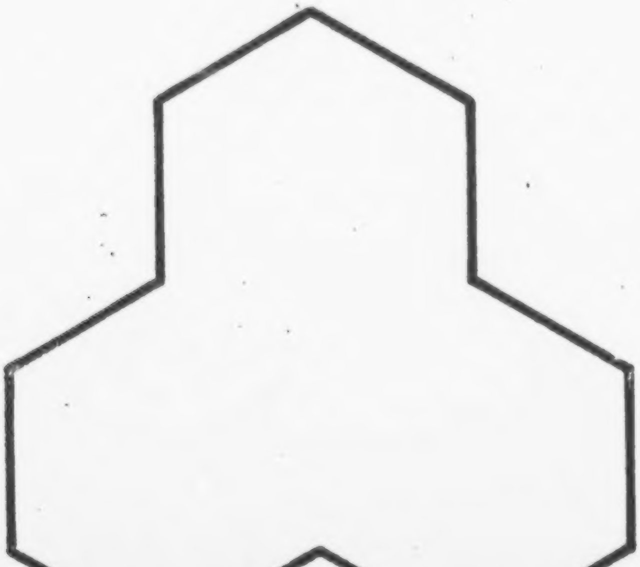
1) Cover each figure with 3 blocks of the same color.

2) Shade $\frac{1}{3}$ of each figure.

3) Cover $\frac{2}{3}$ of each figure with yellow blocks.

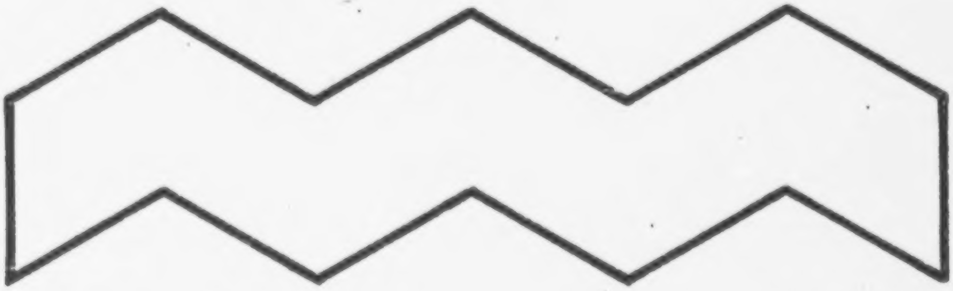




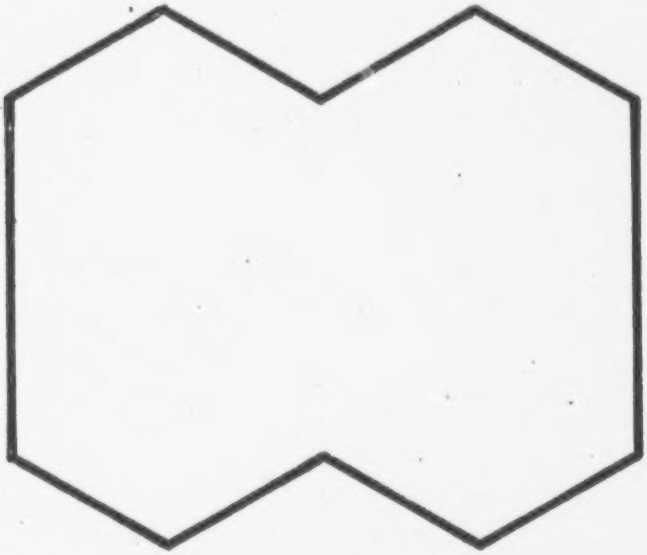


Mathematician:______________________________

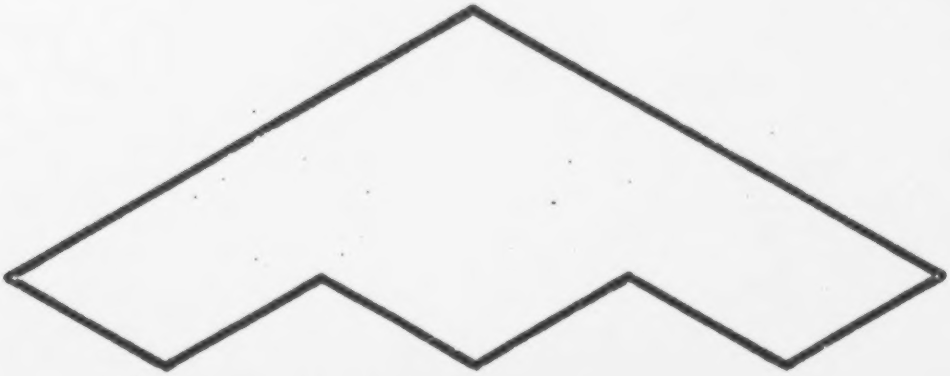
More Fractions



Cover $\frac{1}{2}$ green and $\frac{1}{2}$ blue.



Cover $\frac{1}{2}$ blue and $\frac{1}{2}$ green.

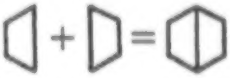


Cover $\frac{1}{2}$ green and $\frac{1}{2}$ blue.

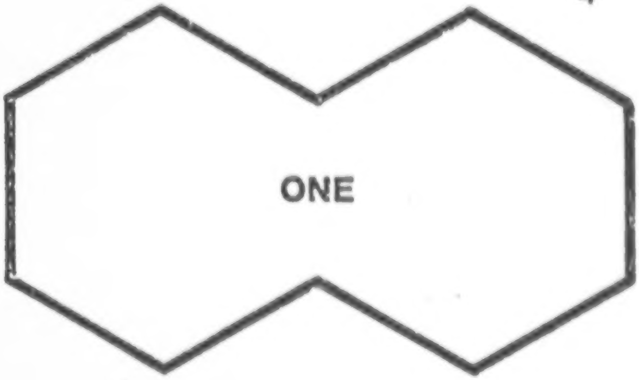
Mathematician:____

Harder Fractions

Addition of fractions involves combining parts. With pattern blocks this means putting together blocks.



$\frac{1}{4} + \frac{1}{4} = \frac{2}{4}$



Use red trapezoids to solve each problem.

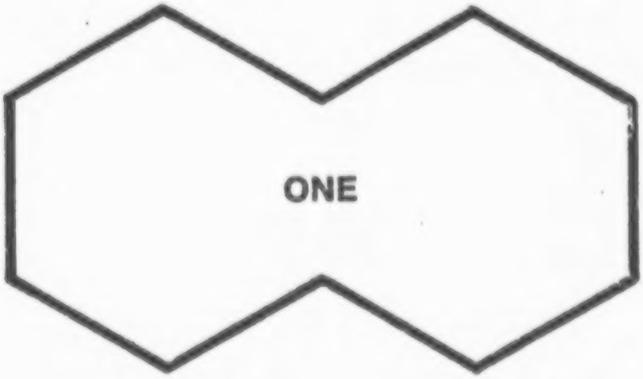
1) $\frac{1}{4} + \frac{3}{4} =$ ☐

2) $\frac{2}{4} + \frac{1}{4} =$ ☐

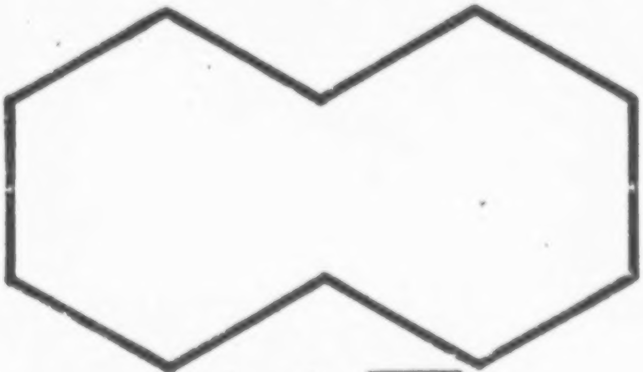
3) $\frac{3}{4} + \frac{1}{4} =$ ☐

4) $\frac{2}{4} + \frac{2}{4} =$ ☐

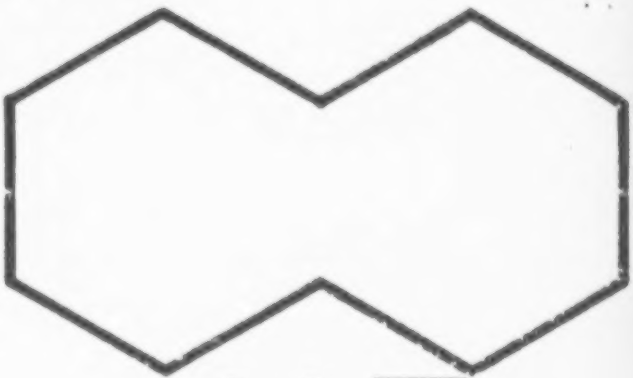
Mathematician:____ Pg. 2



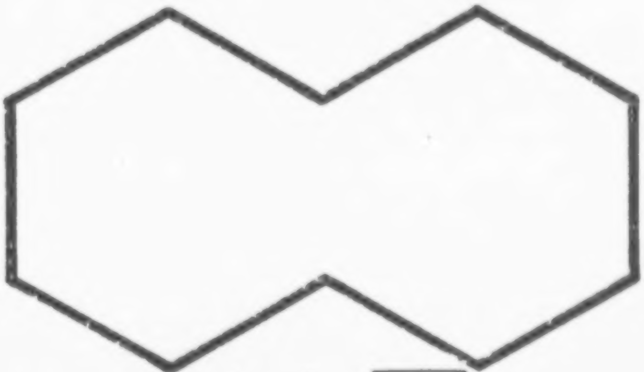
Use blue parallelograms to solve these problems.



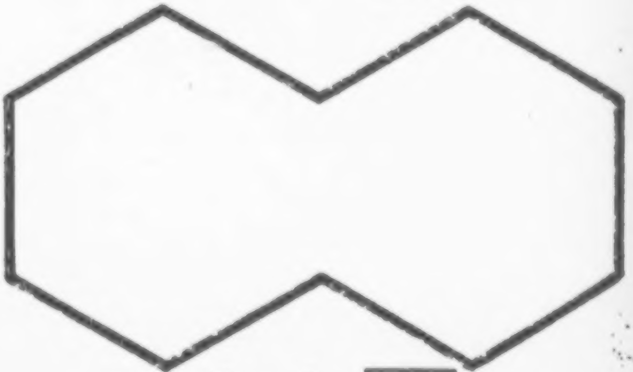
1) $\frac{2}{6} + \frac{4}{6} = \square$



2) $\frac{3}{6} + \frac{3}{6} = \square$

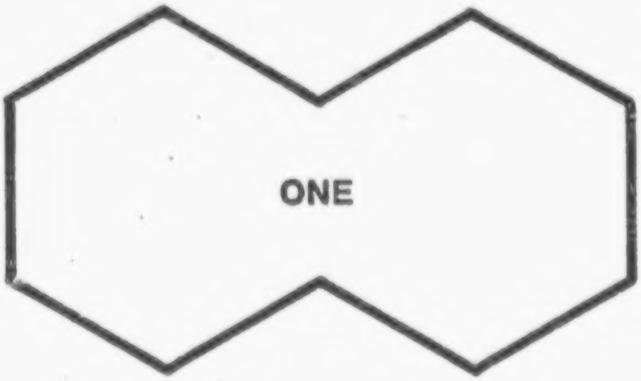


3) $\frac{1}{6} + \frac{2}{6} = \square$



4) $\frac{2}{6} + \frac{3}{6} = \square$

Mathematician:________________________________ Pg. 3



Use pattern blocks to solve these problems.

1) $\frac{1}{6} + \frac{5}{6} = \square$

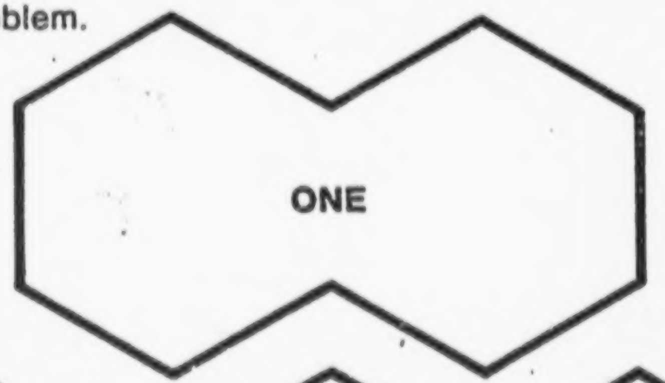
2) $\frac{4}{6} + \frac{1}{6} = \square$

3) $\frac{1}{6} + \frac{1}{6} = \square$

4) $\frac{2}{6} + \frac{2}{6} = \square$

Mathematician: ______________________________ **Pg. 4**

Use blocks to solve each problem.



1) $\frac{1}{6} + \frac{2}{6} + \frac{3}{6} = \square$

2) $\frac{1}{6} + \frac{1}{6} + \frac{1}{6} = \square$

3) $\frac{1}{6} + \frac{4}{6} + \frac{1}{6} = \square$

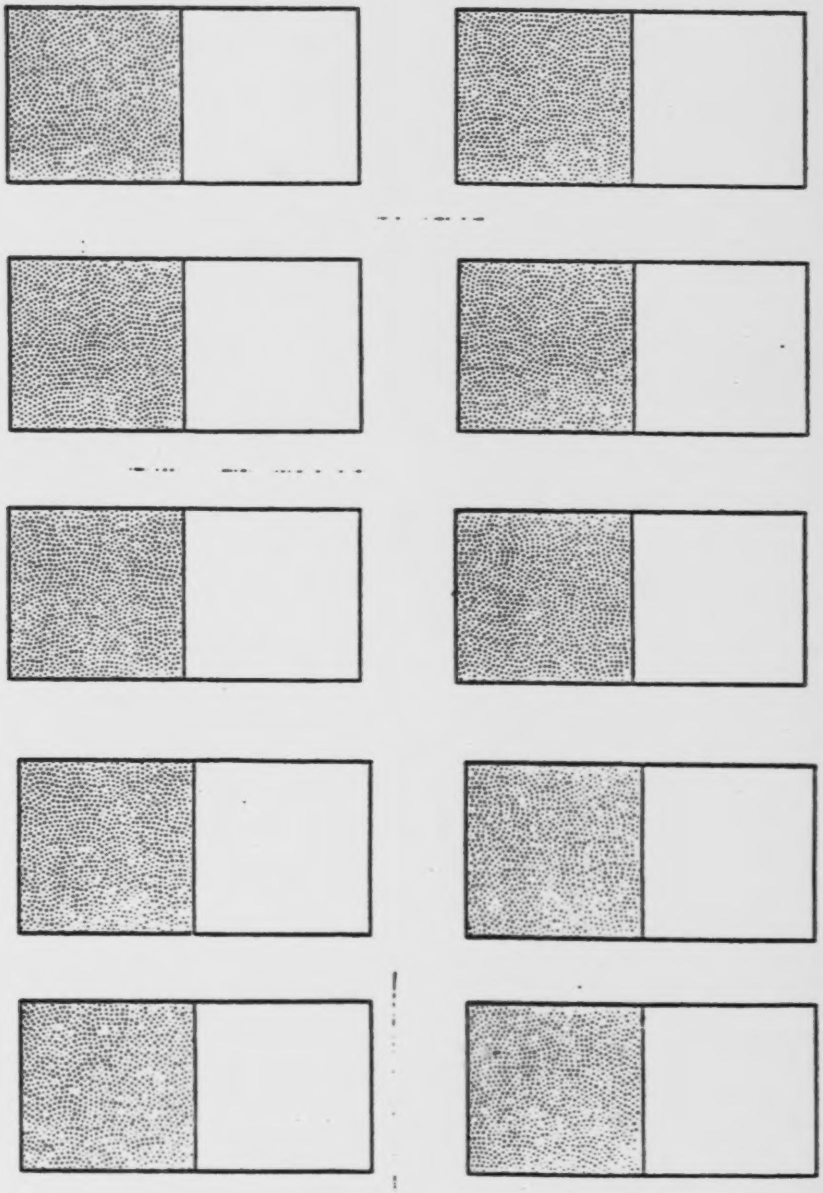
4) $\frac{2}{6} + \frac{1}{6} + \frac{2}{6} = \square$

5) $\frac{2}{6} + \frac{2}{6} + \frac{2}{6} = \square$

6) $\frac{1}{6} + \frac{3}{6} + \frac{1}{6} = \square$

MATHEMATICIAN:____

My Counting Game Record



*MATHEMATICIAN:*____

Counting with TENS and ONES

UNIFIX Counted	Picture of Split Board	Name in Tens & Ones
Example: Fourteen	1 xx xx	TENS ONES 1 4
		TENS ONES
		TENS ONES
		TENS ONES
		TENS ONES
		TENS ONES

PLACE VALUE NUMERATION: LESSON ONE

MATHEMATICIAN:____

Counting with TENS and ONES

UNIFIX Counted	Picture of Split Board		Name in Tens & Ones	
			TENS	ONES
Example: nine		xxx xxx xxx		9
	1	xx x		
			1	8
eleven				
	1	x x		
			1	5

Mathematician:______________________________________

UNIFIX COUNTED	PICTURE OF SPLIT BOARD		NAME IN TENS & ONES	
			TENS	ONES
Example! Sixteen	1	xxx xxx	1	6
	11	xx xx		
			1	8
Twenty two				
	111	xx		
			2	8
	1111	xxx		

Mathematician:____

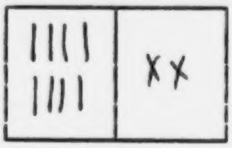
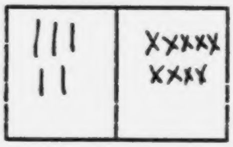
<table>
<tr><th rowspan="2">UNIFIX COUNTED</th><th colspan="2" rowspan="2">PICTURE OF SPLIT BOARD</th><th colspan="2">NAME IN TENS & ONES</th></tr>
<tr><th>TENS</th><th>ONES</th></tr>
<tr><td>Eighteen</td><td></td><td></td><td></td><td></td></tr>
<tr><td></td><td>|||</td><td>xx</td><td></td><td></td></tr>
<tr><td></td><td></td><td></td><td>4</td><td>1</td></tr>
<tr><td></td><td></td><td></td><td>3</td><td>9</td></tr>
<tr><td></td><td>|||||
|</td><td></td><td></td><td></td></tr>
<tr><td>fifty eight</td><td></td><td></td><td></td><td></td></tr>
<tr><td>forty three</td><td></td><td></td><td></td><td></td></tr>
<tr><td>Sixty five</td><td></td><td></td><td></td><td></td></tr>
</table>

Mathematician: ______________________________

Number Words

WORD	PICTURE			NUMERALS		
	■	❘	●	■	❘	●
SIXTY ONE						
	■	❘	●	■	❘	●
	□		••			
	■	❘	●	■	❘	●
					9	3
	■	❘	●	■	❘	●
				1	1	0

Mathematician: ____________________

UNIFIX COUNTED	PICTURE OF SPLIT BOARD	NAME IN TENS & ONES	
		TENS	ONES
		2	7
			
		7	1
Sixty two			
			
		4	9
hinety nine			

Mathematician: ____________________________________

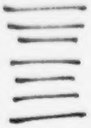
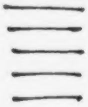
Number Words

WORD	PICTURE			NUMERALS		
Example: One hundred six	■	│	●	■	│	●
	□		⠿	1	0	6
ninety eight	■	│	●	■	│	●
One hundred forty one	■	│	●	■	│	●
Two hundred	■	│	●	■	│	●

Mathematician: ____________________

NUMBER NAME	PICTURE		NUMERAL	
	▭	□	TENS	ONES
nineteen				
	—	x		
			2	0
	=	xx		
twenty three				
			2	1
	—	xxxxx xxxx		

Mathematician: ______________________________

NUMBER NAME	PICTURE		NUMERAL	
	▭	□	TENS	ONES
Example! Seventy			7	0
		x x x x x x x x x		
			4	8

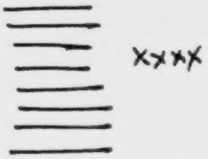
Mathematician: ______________________________

NUMBER NAME	PICTURE		NUMERAL	
	▭	□	TENS	ONES
Example: Sixty three	— — — — — —	xxx	6	3
Forty six				
	— — — — —	xxxxx		
			4	8
			9	3
	— —	xx		
Seventeen				

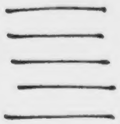
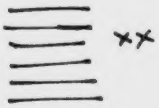
Mathematician: ______________________________

NUMBER NAME	PICTURE		NUMERAL	
	▭	□	TENS	ONES
forty				
	— — — — — —	xxxxx		
			8	4
	— — — — — — — —	xxxxx xx		
thirty seven				
			4	6
	— — —	xxxxx xxxx		

MATHEMATICIAN:____________________________________

NAME	**PICTURE**		**NUMERAL**	
	▭▭▭▭▭▭▭▭▭▭	□	**TENS**	**ONES**
Ninety nine				
			8	3
				
			9	2

MATHEMATICIAN: ____________________

NAME	PICTURE		NUMERAL	
	▯▯▯▯▯▯▯▯▯▯	□	**TENS**	**ONES**
		x x x		
			5	6
Sixty four				
				

MATHEMATICIAN: ____________________

NAME	PICTURE		NUMERAL	
	☐☐☐☐☐☐☐☐☐☐	☐	TENS	ONES
forty				
	—— —— —— ——	×××××		
			4	7
	—— —— —— —— ——			

MATHEMATICIAN: ____

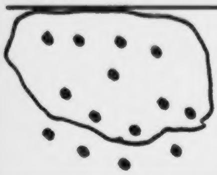
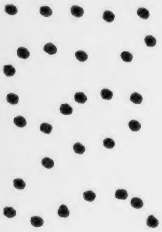
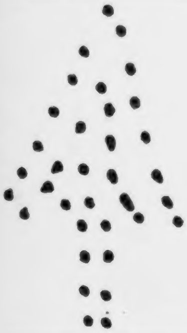
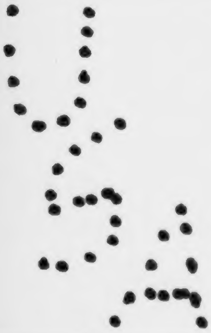
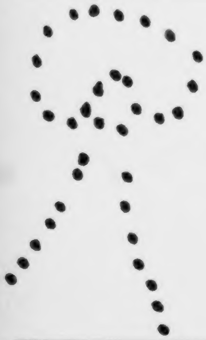
NAME	PICTURE		NUMERAL	
	☐☐☐☐☐☐☐☐☐☐	☐	TENS	ONES
Example: Twelve	—	× ×	1	2
	=	× × ×		
			1	8
Twenty two				

MATHEMATICIAN: ____________________

NAME	PICTURE		NUMERAL	
	□□□□□□□□□□	□	TENS	ONES
Thirty				
	— — —	xxxx		
			2	5
			3	4

Mathematician: ____________________

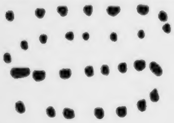
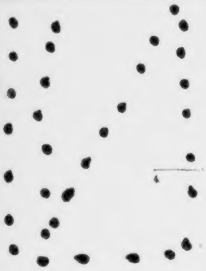
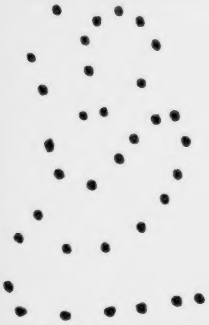
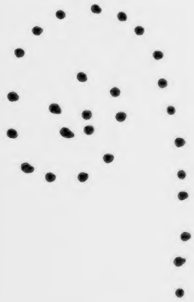
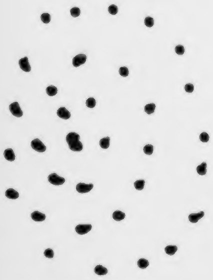
"I grouped the dots into tens and wrote the number as TENS and ONES."

DOTS	COUNTING WORD	
	Fourteen	TENS 1 ONES 4
		TENS ____ ONES ____
		TENS ____ ONES ____
		TENS ____ ONES ____
		TENS ____ ONES ____

PLACE VALUE NUMERATION

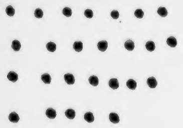
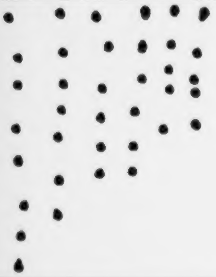
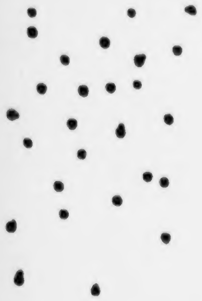
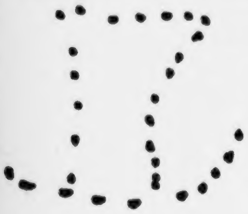
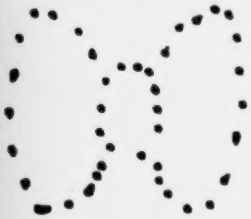
Mathematician:____

"I grouped the dots into tens and wrote the number as TENS and ONES."

DOTS	COUNTING WORD	
		TENS ____________ ONES ____________
		TENS ____________ ONES ____________
		TENS ____________ ONES ____________
		TENS ____________ ONES ____________
		TENS ____________ ONES ____________

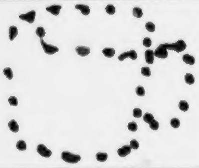
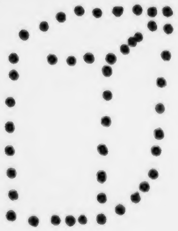
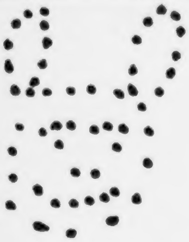
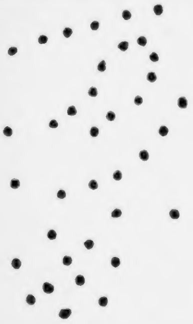
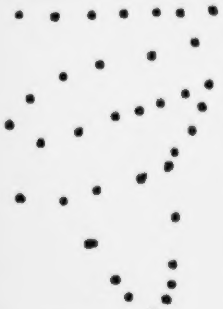
Mathematician:____

"I grouped the dots into tens and wrote the number as TENS and ONES."

DOTS	COUNTING WORD	
		TENS ______________ ONES ______________
		TENS ______________ ONES ______________
		TENS ______________ ONES ______________
		TENS ______________ ONES ______________
		TENS ______________ ONES ______________

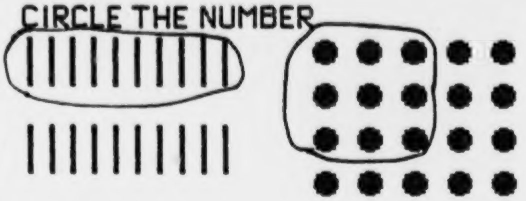
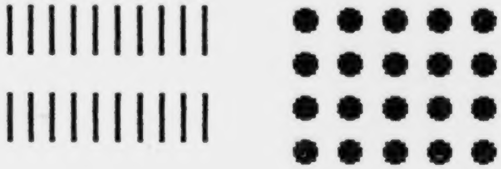
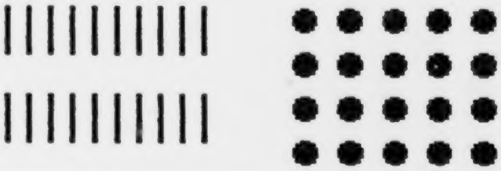
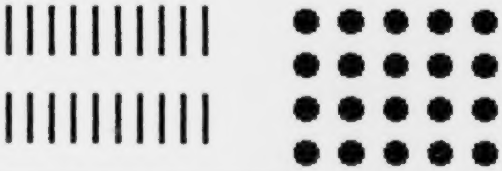
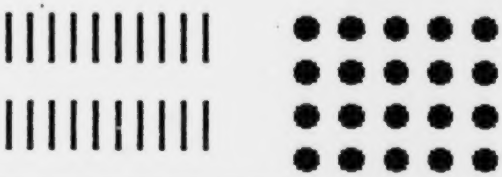
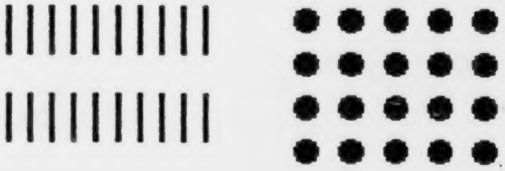
Mathematician: ____________________

"I grouped the dots into tens and wrote the number as TENS and ONES."

DOTS	COUNTING WORD	
		TENS ____________ ONES ____________
		TENS ____________ ONES ____________
		TENS ____________ ONES ____________
		TENS ____________ ONES ____________
		TENS ____________ ONES ____________

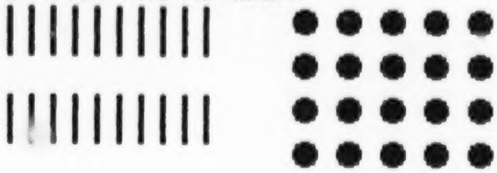
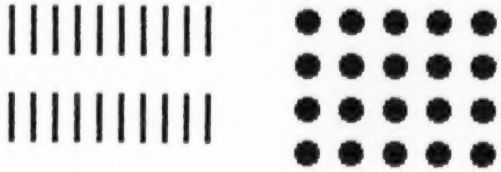
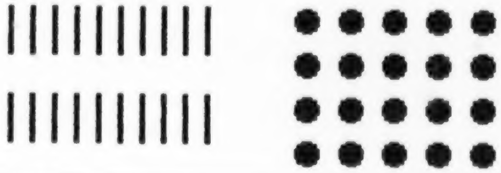
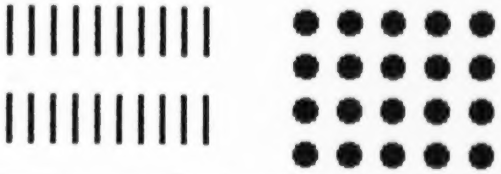
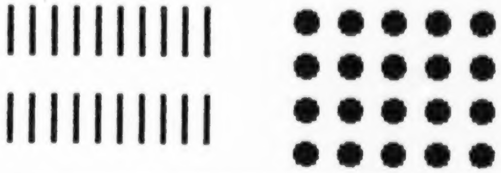
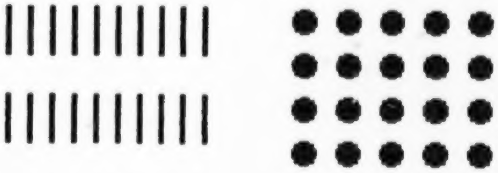
Mathematician:____

"I showed each number given in THREE different ways."

NUMBER	COUNTING WORD	CIRCLE THE NUMBER	TENS	ONES
19	Nineteen		1	9
19				
19				
23				
23				
23				

Mathematician:____

"I showed each number given in THREE different ways."

NUMBER	COUNTING WORD	CIRCLE THE NUMBER	TENS	ONES
25				
25				
25				
33				
33				
33				

PLACE VALUE NUMERATION : Base ten blocks

3.21.89.2

Mathematician:____

"I showed each number given in THREE different ways."

NUMBER	COUNTING WORD	CIRCLE THE NUMBER	TENS	ONES
31		││││││││││ ││││││││││ ●		
31		││││││││││ ││││││││││ ●		
31		││││││││││ ││││││││││ ●		
14		││││││││││ ││││││││││ ●		
14		││││││││││ ││││││││││ ●		
14		││││││││││ ││││││││││ ●		

Mathematician:____

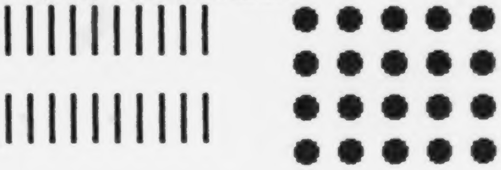
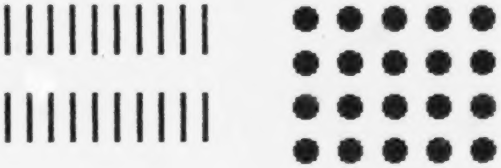
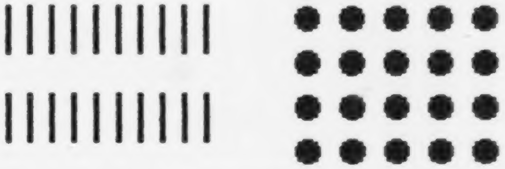
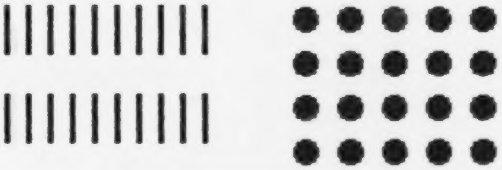
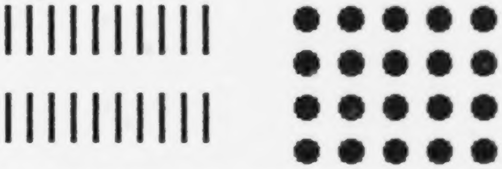
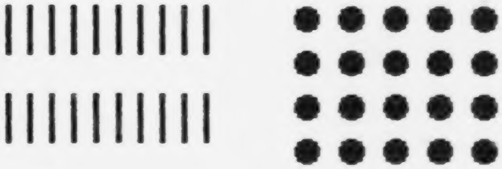
"I showed each number given in THREE different ways."

<table>
<tr><th>NUMBER</th><th>COUNTING WORD</th><th>CIRCLE THE NUMBER</th><th>TENS</th><th>ONES</th></tr>
<tr><td></td><td></td><td>|||||||||| ●●●●●
●●●●●
|||||||||| ●●●●●
●●●●●</td><td></td><td></td></tr>
<tr><td></td><td></td><td>|||||||||| ●●●●●
●●●●●
|||||||||| ●●●●●
●●●●●</td><td></td><td></td></tr>
<tr><td></td><td></td><td>|||||||||| ●●●●●
●●●●●
|||||||||| ●●●●●
●●●●●</td><td></td><td></td></tr>
<tr><td></td><td></td><td>|||||||||| ●●●●●
●●●●●
|||||||||| ●●●●●
●●●●●</td><td></td><td></td></tr>
<tr><td></td><td></td><td>|||||||||| ●●●●●
●●●●●
|||||||||| ●●●●●
●●●●●</td><td></td><td></td></tr>
<tr><td></td><td></td><td>|||||||||| ●●●●●
●●●●●
|||||||||| ●●●●●
●●●●●</td><td></td><td></td></tr>
</table>

3.21.89.2

Mathematician:____

"I showed each number given in THREE different ways."

NUMBER	COUNTING WORD	CIRCLE THE NUMBER	TENS	ONES
34				
34				
34				
29				
29				
29				

3.21.89.2

MATHEMATICIAN:____

Names to Numerals and Back Again

Number Name	Numeral			Numeral			Number Name
Example: forty one		4	1	1	1	0	
		3	5	2	0	0	
one hundred sixty							two hundred twelve
	1	0	3	1	1	3	
eighty nine							sixty
sixty two							forty eight
		2	7	1	0	9	
ninety two							thirty six
		3	0				thirteen
	1	0	6		4	0	
one hundred ten						8	
	1	1	3				sixty six
Seventy two					8	8	
		6	0				ninety two
ninety six				1	0	1	
twenty seven							forty seven

Mathematician:________________________ **Another Numeral Record**

Hundreds	Tens	Ones
Hundreds	Tens	Ones
Hundreds	Tens	Ones
Hundreds	Tens	Ones

Hundreds	Tens	Ones
Hundreds	Tens	Ones
Hundreds	Tens	Ones
Hundreds	Tens	Ones

MATHEMATICIAN:________________________ **My Work with Numerals**

▨	▬	●
▨	▬	●
▨	▬	●
▨	▬	●

▨	▬	●
▨	▬	●
▨	▬	●
▨	▬	●

MATHEMATICIAN:________________________ **My Work with Numerals**

▨	▬	●
▨	▬	●
▨	▬	●
▨	▬	●

▨	▬	●
▨	▬	●
▨	▬	●
▨	▬	●

Mathematician: ______________________

My Computer Record 1

TENS	ONES	TENS	ONES	TENS	ONES
0	1				

Base ten numeration LESSON FIVE

Mathematician: ______________________________

My Computer Record 2

HUNDREDS	TENS	ONES	HUNDREDS	TENS	ONES
0	9	9			

MATHEMATICIAN:____________________________________

My Hundreds Computer

Number	Hundreds	Tens	Ones	□	▬	●
101						
102						
103						
104						
105						
106.						
107						

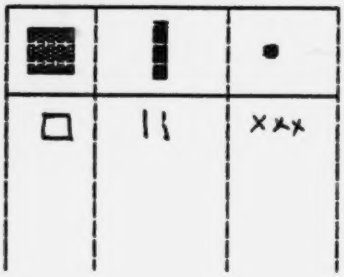
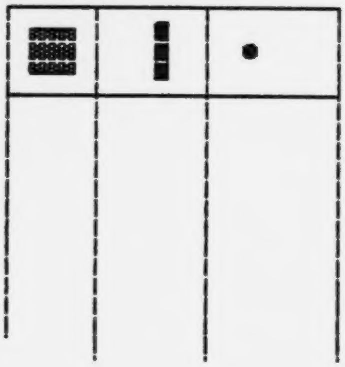
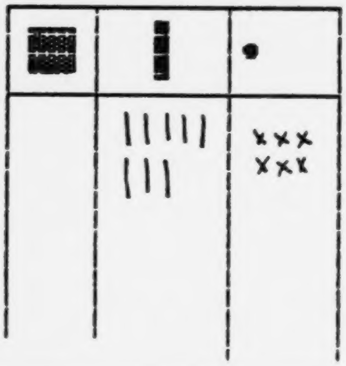
MATHEMATICIAN:____

My Hundreds Computer

Number	Hundreds	Tens	Ones	□	▬	●

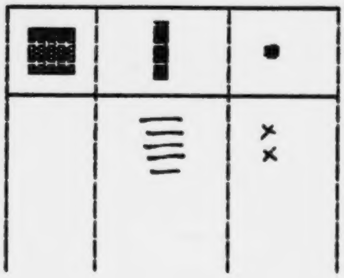
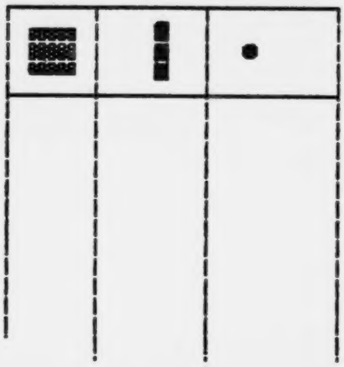
MATHEMATICIAN: ______________________________

WORKSHEET A

PICTURE	NUMERAL	WORD
Example:  	1 2 3	one hundred twenty three
		sixty seven
 		

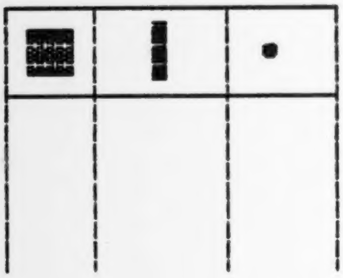
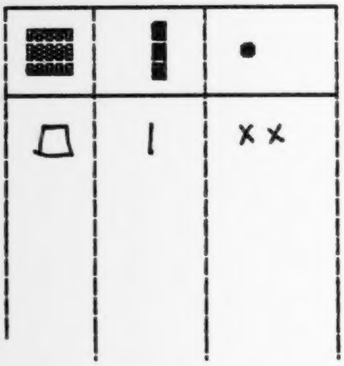
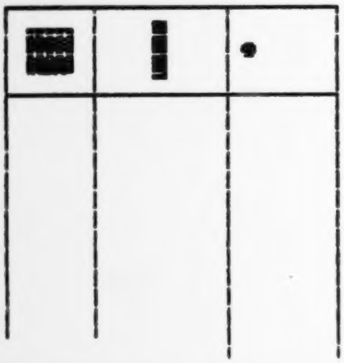
MATHEMATICIAN: ________________________

WORKSHEET A

PICTURE	NUMERAL	WORD
		
	3 8	
		Sixty five

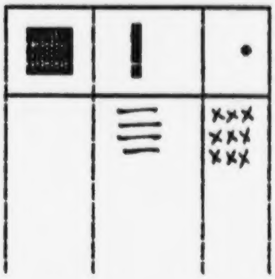
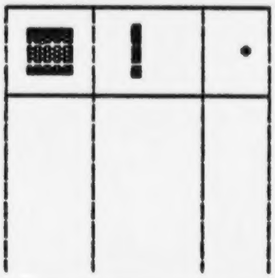
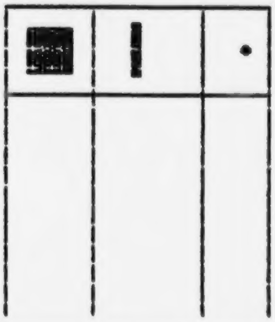
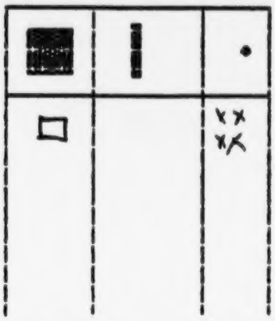
MATHEMATICIAN: ______________________________

WORKSHEET A

PICTURE	NUMERAL	WORD
	1 0 6	
		
	1 1 3	

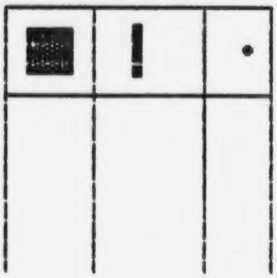
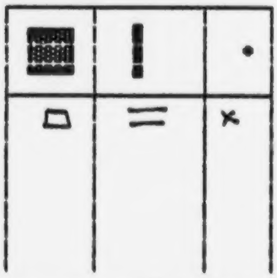
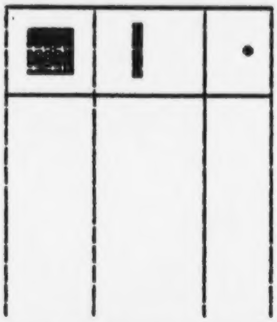
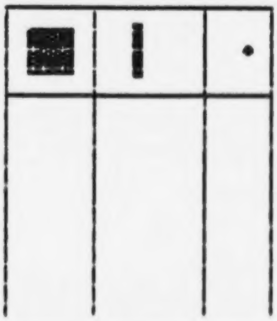
MATHEMATICIAN: ____________________

Worksheet B

NUMERAL	**PICTURE**	**WORD**
		
6 3		
		Seventy nine
		

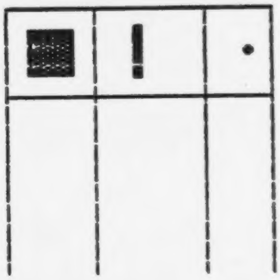
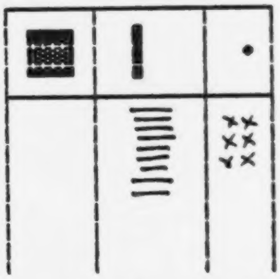
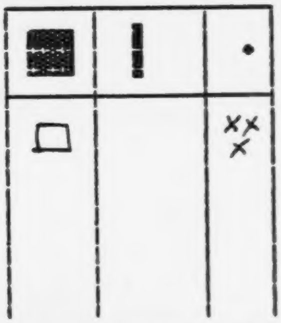
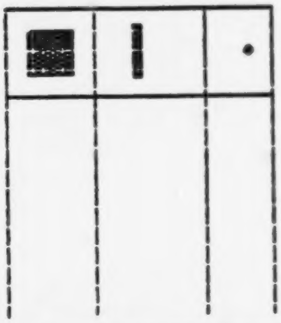
MATHEMATICIAN: ______________________________

Worksheet B

NUMERAL	PICTURE	WORD
		one hundred eight
		
123		
		one hundred five

MATHEMATICIAN: ____________________

Worksheet B

NUMERAL	PICTURE	WORD
113		
		
		
		one hundred

MATHEMATICIAN:____

Worksheet C

<table>
<tr><th>WORD</th><th>PICTURE</th><th>NUMERAL</th></tr>
<tr><td>Example!
Sixty</td><td><table><tr><th>HUNDREDS</th><th>TENS</th><th>ONES</th></tr><tr><td></td><td>6</td><td>0</td></tr></table></td><td>60</td></tr>
<tr><td></td><td><table><tr><th>HUNDREDS</th><th>TENS</th><th>ONES</th></tr><tr><td></td><td>8</td><td>3</td></tr></table></td><td></td></tr>
<tr><td></td><td><table><tr><th>HUNDREDS</th><th>TENS</th><th>ONES</th></tr><tr><td></td><td></td><td></td></tr></table></td><td>74</td></tr>
</table>

MATHEMATICIAN: ______________________________

Worksheet C

<table>
<tr><th>WORD</th><th>PICTURE</th><th>NUMERAL</th></tr>
<tr><td>ninety</td><td><table><tr><th>HUNDREDS</th><th>TENS</th><th>ONES</th></tr><tr><td></td><td></td><td></td></tr></table></td><td></td></tr>
<tr><td></td><td><table><tr><th>HUNDREDS</th><th>TENS</th><th>ONES</th></tr><tr><td>1</td><td>1</td><td>2</td></tr></table></td><td></td></tr>
<tr><td></td><td><table><tr><th>HUNDREDS</th><th>TENS</th><th>ONES</th></tr><tr><td></td><td></td><td></td></tr></table></td><td>106</td></tr>
</table>

MATHEMATICIAN: ______________________________

Worksheet C

<table>
<tr><th>WORD</th><th>PICTURE</th><th>NUMERAL</th></tr>
<tr><td>Seventy four</td><td><table><tr><th>HUNDREDS</th><th>TENS</th><th>ONES</th></tr><tr><td></td><td></td><td></td></tr></table></td><td></td></tr>
<tr><td></td><td><table><tr><th>HUNDREDS</th><th>TENS</th><th>ONES</th></tr><tr><td></td><td>6</td><td>1</td></tr></table></td><td></td></tr>
<tr><td></td><td><table><tr><th>HUNDREDS</th><th>TENS</th><th>ONES</th></tr><tr><td></td><td></td><td></td></tr></table></td><td>82</td></tr>
</table>

*MATHEMATICIAN:*______________________________

WORKSHEET D

1. Build the number given with base ten blocks
2. Draw the picture, fill in the blanks, or write the numeral as are missing.

Example:

PICTURE			NUMBER NAME	NUMERALS		
■	│	●	1 Hundreds 2 Tens 2 Ones	Hundreds	Tens	Ones
□	││	••		1	2	2
■	│	●	__Hundreds __Tens ___Ones	Hundreds	Tens	Ones
□ □	│││ ││	••• •				
■	│	●	__Hundreds __Tens ___Ones	Hundreds	Tens	Ones
					6	5
■	│	●	2 Hundreds 3 Tens 4 Ones	Hundreds	Tens	Ones
■	│	●	__Hundreds __Tens ___Ones	Hundreds	Tens	Ones
□ □	│					

*MATHEMATICIAN:*____

WORKSHEET D

1. Build the number given with base ten blocks
2. Draw the picture, fill in the blanks, or write the numeral as are missing.

PICTURE			NUMBER NAME	NUMERALS		
■	│	●	2 Hundreds 0 Tens 3 Ones	Hundreds	Tens	Ones
■	│	●	__Hundreds __Tens __Ones	Hundreds	Tens	Ones
				1	1	0
■	│	●	__Hundreds __Tens __Ones	Hundreds	Tens	Ones
□	││	••				
■	│	●	1 Hundreds 1 Tens 0 Ones	Hundreds	Tens	Ones
■	│	●	__Hundreds __Tens __Ones	Hundreds	Tens	Ones
□ □ □	│	•				

*MATHEMATICIAN:*______________________________

WORKSHEET D

1. Build the number given with base ten blocks
2. Draw the picture, fill in the blanks, or write the numeral as are missing.

PICTURE			NUMBER NAME	NUMERALS		
■	|	●	__Hundreds __Tens ___Ones	Hundreds	Tens	Ones
				2	0	1
■	|	●	0 Hundreds 4 Tens 3 Ones	Hundreds	Tens	Ones
■	|	●	1 Hundreds 0 Tens 6 Ones	Hundreds	Tens	Ones
■	|	●	__Hundreds __Tens ___Ones	Hundreds	Tens	Ones
				2	1	0
■	|	●	__Hundreds __Tens ___Ones	Hundreds	Tens	Ones
□		● ● ●				

*MATHEMATICIAN:*____________________________________

WORKSHEET D

1. Build the number given with base ten blocks
2. Draw the picture, fill in the blanks, or write the numeral as are missing.

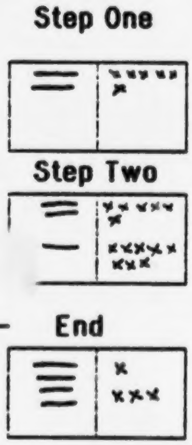
PICTURE			NUMBER NAME	NUMERALS		
■	│	●	__Hundreds __Tens ___Ones	Hundreds	Tens	Ones
□ □	│	•				
■	│	●	1 Hundreds 1 Tens 1 Ones	Hundreds	Tens	Ones
■	│	●	__Hundreds __Tens ___Ones	Hundreds	Tens	Ones
				2	1	3
■	│	●	__Hundreds __Tens ___Ones	Hundreds	Tens	Ones
□ □	││	●●				
■	│	●	2 Hundreds 0 Tens 4 Ones	Hundreds	Tens	Ones

MATHEMATICIAN: ______________________________

What's On My Board

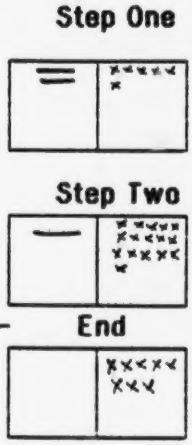
Example:

Tens	Ones
2	6
+ 1	8
4	4


Step One
Step Two
End

Example:

Tens	Ones
2	6
− 1	8
	8


Step One
Step Two
End

Tens	Ones

Step One

Step Two

End

Tens	Ones

Step One

Step Two

End

MATHEMATICIAN: ______________________________

What's On My Board

Tens	Ones	Step One
		☐☐
		Step Two
		☐☐
		End
		☐☐

Tens	Ones	Step One
		☐☐
		Step Two
		☐☐
		End
		☐☐

Tens	Ones	Step One
		☐☐
		Step Two
		☐☐
		End
		☐☐

Tens	Ones	Step One
		☐☐
		Step Two
		☐☐
		End
		☐☐

MATHEMATICIAN: ______________________________

What's On My Board

Tens	Ones	Step One Step Two End

Tens	Ones	Step One Step Two End

Tens	Ones	Step One Step Two End

Tens	Ones	Step One Step Two End

MATHEMATICIAN: ______________________________

What's On My Board

Tens
Ones
Step One
Step Two
End

Tens
Ones
Step One
Step Two
End

Tens
Ones
Step One
Step Two
End

Tens
Ones
Step One
Step Two
End

Mathematician: ________________________________

My Base Ten Work

Numerals	Pictures		Pictures		Numerals
Example!	TENS	ONES	TENS	ONES	
23	— —	×××			26
+ 44	— — — —	××××			+ 35
67	— — — — — —	××××× ××			
	TENS	ONES	TENS	ONES	
35			— — —	××××	
+ 36			+ —	××××× ××	
	TENS	ONES	TENS	ONES	
	— —	××××	— —	××××	
	+ — — —	××××× ××	+ — — — —	×××××	
	TENS	ONES	TENS	ONES	
	— —	×××			18
	+ — — —	×××			+ 15

Mathematician:________________________________

My Base Ten Work

Numerals	Pictures		Pictures		Numerals
Example:	TENS	ONES	TENS	ONES	
43	≣	xxx	≡		
− 23	− =	xxx	− =	xx	
20	=				
	TENS	ONES	TENS	ONES	
	≡				30
	− —	xxxxx			− 16
	TENS	ONES	TENS	ONES	
21			≣	xxx	
− 19			− —	xx	
	TENS	ONES	TENS	ONES	
	≣	xx			47
	− =	xxxxx			− 26

Mathematician: ____________________

TENS	ONES	TENS	ONES
Example: 1. 3 + 2	2 1	2 +	4 8
5	3		☐
2. 1 +	8 7	1 +	9 8
	☐		☐
3. 2 + 1	3 5	 1	8 4
	☐		☐

Mathematician: ______________________________

TENS	ONES	TENS	ONES
1. + 1	6 9	+ 1 1	☐ 4
	☐	2	9
2. 2 + 3	1 4	1 +	2 6
	☐	3	8
3. + 	6 2	1 + 2	6 4
1	8		☐

Mathematician: ______________________________

TENS	ONES	TENS	ONES
1. 2 − 1	6 4	3 − 1	1 7
	☐		☐
2. 3 − 1	0 4	4 − 2	3 0
	☐		☐
3. 4 −2	6 3	2 − 1	8 4
	☐		☐

Mathematician:____

TENS	ONES	TENS	ONES
1. 3 − 2	☐ 4	3 − 2	6 ☐
	7	1	1
2. 2 −	0 ☐	2 −	8 4
1	2	1	4
3. 2 −	3 4	3 − 1	2 5
	9		☐

Mathematician: ____________________

TENS	ONES	TENS	ONES
1. 3 − 1	$\boxed{0}$ ☐	2 − 1	$\boxed{4}$ ☐
1	$\boxed{5}$	1	$\boxed{2}$
2. 2 − 1	$\boxed{9}$ $\boxed{6}$	3 −	$\boxed{2}$ $\boxed{7}$
	☐	1	$\boxed{5}$
3. 3 − 1	$\boxed{2}$ $\boxed{6}$	3 −	$\boxed{0}$ $\boxed{6}$
	$\boxed{6}$	2	$\boxed{4}$

Mathematician:____________________________________

TENS	ONES	TENS	ONES
1. 2 + 3	$\boxed{6}$ ☐	3 +	$\boxed{1}$ ☐
	$\boxed{9}$	6	$\boxed{4}$
2. 2 +	$\boxed{0}$ $\boxed{7}$		☐ ☐
4	☐		☐
3. 2 + 1	$\boxed{3}$ ☐		☐ ☐
3	$\boxed{6}$		☐

Mathematician:______________________________________

TENS	ONES	TENS	ONES
1. 4 − 3	$\boxed{0}$ ☐	4 − 2	$\boxed{0}$ ☐
	$\boxed{2}$		$\boxed{2}$
2. 5 − 2	☐ $\boxed{7}$	3 − 1	☐ $\boxed{2}$
2	$\boxed{6}$	1	☐
3. 3 −	$\boxed{1}$ ☐	4 −	$\boxed{2}$ ☐
1	$\boxed{7}$	1	$\boxed{8}$

*Mathematician:*____

TENS	ONES	TENS	ONES
1.	☐ ☐		☐ ☐
	☐		☐
2.	☐ ☐		☐ ☐
	☐		☐
3.	☐ ☐		☐ ☐
	☐		☐

Mathematician: ______________________________

COMPUTATION	PICTURE			NUMBER SENTENCE
	HUNDREDS	TENS	ONES	
+ ________		≡ + =	x	______ + ______ = ______
+ ________				28 + 33 = ______
86 + 34				______ = ______ + ______
+ ________	□ □	—	xxx xxxxx	______ = ______ + ______
48 + ________ 63				______ + ______ = ______
+ ________		≡ + ≣	x xxxx	______ = ______ + ______
+ ________				102 = 65 + ______

*MATHEMATICIAN:*______________________________

BEANS DIVISION RECORD 2

Beans Used ÷	Cups =	Beans needed in each cup	Remainder	Number Sentence
13		3	1	
15	2			
16	3			
16	5		1	
10	3		1	
9	2			
8	3			
7	2			
9		3		
10		4		
12		2		
15		4		

MATHEMATICIAN: ____________________________

BEANS DIVISION RECORD 2

Beans Used ÷	Cups =	Beans needed in each cup	Remainder	Number Sentence
21		7		
22		5		
23		4		
24	5			
26	3			
25	3			
27		2		
27		4		
16		3		
12		5		
13		5		
10	2			

*MATHEMATICIAN:*______________________________________

BEANS DIVISION RECORD 2

Beans Used	**÷ Cups**	**= Beans needed in each cup**	**Remainder**	**Number Sentence**
				10 ÷ 4 = 2 R 2
			1	9 ÷ 4 =
				6 ÷ □ = 3 R 0
				□ ÷ 2 = 5 R 1
				7 ÷ 2 = □ R 1
				7 ÷ 3 =
				2 R 1 = 9 ÷ □
				3 R 0 = 9 ÷ □
				3 = 12 ÷ □
				4 = □ ÷ 4
				9 = □ ÷ 2
				13 ÷ 3 = 4 R □

MATHEMATICIAN: ______________________________

TILE DIVISION RECORD

Tiles Used ÷	Rows =	Columns	Remainder	Number Sentence
Example: 2	1	2	0	2 ÷ 1 = 2
2	2	1	0	2 ÷ 2 = 1
3	1			
3	2	1	1	3 ÷ 2 = 1 R 1
3	3			
4	1			
4	2			
4	3			
4	4			
5	1			
5	2			
5	3			

MATHEMATICIAN: ______________________________

TILE DIVISION RECORD

Tiles Used ÷	Rows	Columns	Remainder	Number Sentence
5	4			
5	5			
6	1			
6	2			
6	3			
6	4			
6	5			
6	6			
7	1			
7	2			
7	3			
7	4			

MATHEMATICIAN: ____________________

TILE DIVISION RECORD

Tiles Used ÷	Rows =	Columns	Remainder	Number Sentence
7	5			
7	6			
7	7			
8	1			
8	2			
8	3			
8	4			
8	5			
8	6			
8	7			
8	8			
9	1			

*MATHEMATICIAN:*____________________________

TILE DIVISION RECORD

Tiles Used ÷	Rows =	Columns	Remainder	Number Sentence
9	2			
9	3			
9	4			
9	5			
9	6			
9	7			
9	8			
9	9			
9	10			
10	1			
10	2			
10	3			

*MATHEMATICIAN:*____________________________________

TILE DIVISION RECORD

Tiles Used ÷	Rows =	Columns	Remainder	Number Sentence
10	4			
10	5			
10	6			
10	7			
10	8			
10	9			
10	10			
11	1			
11	2			
11	3			
11	4			
11	5			

*MATHEMATICIAN:*________________________

TILE DIVISION RECORD

Tiles Used ÷	Rows =	Columns	Remainder	Number Sentence
11	6			
11	7			
11	8			
11	9			
11	10			
12	1			
12	2			
12	3			
12	4			
12	5			
12	6			
12	7			

MATHEMATICIAN: ______________________________

TILE DIVISION RECORD

Tiles Used ÷	Rows =	Columns	Remainder	Number Sentence
12	8			
12	9			
12	10			
13	1			
13	2			
13	3			
13	4			
13	5			
13	6			
13	7			
13	8			
13	9			

MATHEMATICIAN: ______________________________

TILE DIVISION RECORD

Tiles Used ÷	Rows =	Columns	Remainder	Number Sentence
13	10			
14	1			
14	2			
14	3			
14	4			
14	5			
14	6			
14	7			
14	8			
14	9			
14	10			
15	1			

*MATHEMATICIAN:*____

TILE DIVISION RECORD

Tiles Used ÷	Rows =	Columns	Remainder	Number Sentence
15	2			
15	3			
15	4			
15	5			
15	6			
15	7			
15	8			
15	9			
15	10			
16	1			
16	2			
16	3			

*MATHEMATICIAN:*________________________________

TILE DIVISION RECORD

Tiles Used ÷	Rows =	Columns	Remainder	Number Sentence
16	4			
16	5			
16	6			
16	7			
16	8			
16	9			
16	10			
17	1			
17	2			
17	3			
17	4			
17	5			

*MATHEMATICIAN:*______________________

TILE DIVISION RECORD

Tiles Used ÷	Rows	Columns	Remainder	Number Sentence
17	6			
17	7			
17	8			
17	9			
17	10			
18	1			
18	2			
18	3			
18	4			
18	5			
18	6			
18	7			

*MATHEMATICIAN:*______________________________

TILE DIVISION RECORD

Tiles Used ÷	Rows	Columns	Remainder	Number Sentence
18	8			
18	9			
18	10			
19	1			
19	2			
19	3			
19	4			
19	5			
19	6			
19	7			
19	8			
19	9			

*MATHEMATICIAN:*______________________________

TILE DIVISION RECORD

Tiles Used ÷	Rows	Columns	Remainder	Number Sentence
19	10			
20	1			
20	2			
20	3			
20	4			
20	5			
20	6			
20	7			
20	8			
20	9			
20	10			
21	1			

*MATHEMATICIAN:*______________________________

TILE DIVISION RECORD

Tiles Used ÷	Rows	Columns	Remainder	Number Sentence
21	2			
21	3			
21	4			
21	5			
21	6			
21	7			
21	8			
21	9			
21	10			
22	1			
22	2			
22	3			

*MATHEMATICIAN:*________________________________

TILE DIVISION RECORD

Tiles Used ÷	Rows	Columns	Remainder	Number Sentence
22	4			
22	5			
22	6			
22	7			
22	8			
22	9			
22	10			
23	1			
23	2			
23	3			
23	4			
23	5			

MATHEMATICIAN: ______________________________

TILE DIVISION RECORD

Tiles Used ÷	Rows	Columns	Remainder	Number Sentence
23	6			
23	7			
23	8			
23	9			
23	10			
24	1			
24	2			
24	3			
24	4			
24	5			
24	6			
24	7			

MATHEMATICIAN: ______________________________

TILE DIVISION RECORD

Tiles Used ÷	Rows	Columns	Remainder	Number Sentence
24	8			
24	9			
24	10			
25	1			
25	2			
25	3			
25	4			
25	5			
25	6			
25	7			
25	8			
25	9			

MATHEMATICIAN: ______________________________

TILE DIVISION RECORD

Tiles Used ÷	Rows	Columns	Remainder	Number Sentence
25	10			
26	1			
26	2			
26	3			
26	4			
26	5			
26	6			
26	7			
26	8			
26	9			
26	10			
27	1			

MATHEMATICIAN: ______________________________

TILE DIVISION RECORD

Tiles Used ÷	Rows	Columns	Remainder	Number Sentence
27	2			
27	3			
27	4			
27	5			
27	6			
27	7			
27	8			
27	9			
27	10			
28	1			
28	2			
28	3			

MATHEMATICIAN:______________________________________

TILE DIVISION RECORD

Tiles Used ÷	Rows	Columns	Remainder	Number Sentence
28	4			
28	5			
28	6			
28	7			
28	8			
28	9			
28	10			
29	1			
29	2			
29	3			
29	4			
29	5			

*MATHEMATICIAN:*____________________________________

TILE DIVISION RECORD

Tiles Used ÷	Rows	Columns	Remainder	Number Sentence
29	6			
29	7			
29	8			
29	9			
29	10			
30	1			
30	2			
30	3			
30	4			
30	5			
30	6			
30	7			

*MATHEMATICIAN:*____

TILE DIVISION RECORD

Tiles Used ÷	Rows	Columns	Remainder	Number Sentence
30	8			
30	9			
30	10			
40	10			
50	10			
60	10			
70	10			
80	10			
90	10			
100	10			

MATHEMATICIAN: ______________________________

TILE DIVISION RECORD

Tiles Used ÷	Columns	Rows	Remainder	Number Sentence
Example: 2	1	2	0	2 1 = 2
2	2			
3	1			
3	2			
3	3			
4	1			
4	2			
4	3			
4	4			
5	1			
5	2			
5	3			

MATHEMATICIAN: ____________________

TILE DIVISION RECORD

Tiles Used ÷	Columns	Rows	Remainder	Number Sentence
5	4			
5	5			
6	1			
6	2			
6	3			
6	4			
6	5			
6	6			
7	1			
7	2			
7	3			
7	4			

MATHEMATICIAN: ______________________________

TILE DIVISION RECORD

Tiles Used ÷	Columns	Rows	Remainder	Number Sentence
7	5			
7	6			
7	7			
8	1			
8	2			
8	3			
8	4			
8	5			
8	6			
8	7			
8	8			
9	1			

*MATHEMATICIAN:*______________________________

TILE DIVISION RECORD

Tiles Used ÷	Columns	Rows	Remainder	Number Sentence
9	2			
9	3			
9	4			
9	5			
9	6			
9	7			
9	8			
9	9			
10	1			
10	2			
10	3			
10	4			

*MATHEMATICIAN:*_____________________________________

TILE DIVISION RECORD

Tiles Used ÷	Columns	Rows	Remainder	Number Sentence
10	5			
10	6			
10	7			
10	8			
10	9			
10	10			
11	1			
11	2			
11	3			
11	4			
11	5			
11	6			

MATHEMATICIAN: ____________________

TILE DIVISION RECORD

Tiles Used ÷	Columns	Rows	Remainder	Number Sentence
11	7			
11	8			
11	9			
11	10			
12	1			
12	2			
12	3			
12	4			
12	5			
12	6			
12	7			
12	8			

*MATHEMATICIAN:*____

TILE DIVISION RECORD

Tiles Used ÷	Columns	Rows	Remainder	Number Sentence
12	9			
12	10			
13	1			
13	2			
13	3			
13	4			
13	5			
13	6			
13	7			
13	8			
13	9			
13	10			

*MATHEMATICIAN:*______________________________________

TILE DIVISION RECORD

Tiles Used ÷	Columns	Rows	Remainder	Number Sentence
14	1			
14	2			
14	3			
14	4			
14	5			
14	6			
14	7			
14	8			
14	9			
14	10			
15	1			
15	2			

MATHEMATICIAN: ______________________________

TILE DIVISION RECORD

Tiles Used ÷	Columns	Rows	Remainder	Number Sentence
15	3			
15	4			
15	5			
15	6			
15	7			
15	8			
15	9			
15	10			
16	1			
16	2			
16	3			
16	4			

MATHEMATICIAN:________________________________

TILE DIVISION RECORD

Tiles Used ÷	Columns	Rows	Remainder	Number Sentence
16	5			
16	6			
16	7			
16	8			
16	9			
16	10			
17	1			
17	2			
17	3			
17	4			
17	5			
17	6			

MATHEMATICIAN:____

TILE DIVISION RECORD

Tiles Used ÷	Columns	Rows	Remainder	Number Sentence
17	7			
17	8			
17	9			
17	10			
18	1			
18	2			
18	3			
18	4			
18	5			
18	6			
18	7			
18	8			

MATHEMATICIAN:____

TILE DIVISION RECORD

Tiles Used ÷	Columns	Rows	Remainder	Number Sentence
18	9			
18	10			
19	1			
19	2			
19	3			
19	4			
19	5			
19	6			
19	7			
19	8			
19	9			
19	10			

MATHEMATICIAN:________________________________

TILE DIVISION RECORD

Tiles Used ÷	Columns	Rows	Remainder	Number Sentence
20	1			
20	2			
20	3			
20	4			
20	5			
20	6			
20	7			
20	8			
20	9			
20	10			
21	1			
21	2			

*MATHEMATICIAN:*________________________________

TILE DIVISION RECORD

Tiles Used ÷	Columns	Rows	Remainder	Number Sentence
21	3			
21	4			
21	5			
21	6			
21	7			
21	8			
21	9			
21	10			
22	1			
22	2			
22	3			
22	4			

MATHEMATICIAN: ______________________

TILE DIVISION RECORD

Tiles Used ÷	Columns	Rows	Remainder	Number Sentence
22	5			
22	6			
22	7			
22	8			
22	9			
22	10			
23	1			
23	2			
23	3			
23	4			
23	5			
23	6			

MATHEMATICIAN: ______________________________

TILE DIVISION RECORD

Tiles Used ÷	Columns	Rows	Remainder	Number Sentence
23	7			
23	8			
23	9			
23	10			
24	1			
24	2			
24	3			
24	4			
24	5			
24	6			
24	7			
24	8			

MATHEMATICIAN:________________________________

TILE DIVISION RECORD

Tiles Used ÷	Columns	Rows	Remainder	Number Sentence
24	9			
24	10			
25	1			
25	2			
25	3			
25	4			
25	5			
25	6			
25	7			
25	8			
25	9			
25	10			

MATHEMATICIAN: ______________________________

TILE DIVISION RECORD

Tiles Used ÷	Columns	Rows	Remainder	Number Sentence
26	1			
26	2			
26	3			
26	4			
26	5			
26	6			
26	7			
26	8			
26	9			
26	10			
27	1			
27	2			

*MATHEMATICIAN:*____

TILE DIVISION RECORD

Tiles Used ÷	Columns	Rows	Remainder	Number Sentence
27	3			
27	4			
27	5			
27	6			
27	7			
27	8			
27	9			
27	10			
28	1			
28	2			
28	3			
28	4			

*MATHEMATICIAN:*________________________________

TILE DIVISION RECORD

Tiles Used ÷	Columns	Rows	Remainder	Number Sentence
28	5			
28	6			
28	7			
28	8			
28	9			
28	10			
29	1			
29	2			
29	3			
29	4			
29	5			
29	6			

MATHEMATICIAN:__________________________________

TILE DIVISION RECORD

Tiles Used ÷	Columns	Rows	Remainder	Number Sentence
29	7			
29	8			
29	9			
29	10			
30	1			
30	2			
30	3			
30	4			
30	5			
30	6			
30	7			
30	8			

*MATHEMATICIAN:*____

TILE DIVISION RECORD

Tiles Used ÷	Columns	Rows	Remainder	Number Sentence
30	9			
30	10			
40	10			
50	10			
60	10			
70	10			
80	10			
90	10			
100	10			

*MATHEMATICIAN:*______________________________

TILE DIVISION RECORD

Tiles Used ÷	Rows	Columns	Remainder	Number Sentence

*MATHEMATICIAN:*____

TILE DIVISION RECORD

Tiles Used ÷	Rows	Columns	Remainder	Number Sentence
30	3			
30	4			
30	5			
30	6			
30	7			
30	8			
30	9			
30	10			
30	11			
30		2	6	
30			4	
30		2	2	

MATHEMATICIAN: ______________________________

TILE DIVISION RECORD

Tiles Used ÷	Rows =	Columns	Remainder	Number Sentence
				☐ ÷ 3 R 1
16	3			
16		4		
16		3	1	
16				16 ÷ 6 =
16	7			
	8	2		
16		1	7	
11	2			
11	3			
11		2	R 3	
				11 ÷ 5 = 2 R 1

MATHEMATICIAN: ______________________________

TILE DIVISION RECORD

Tiles Used ÷	Rows	Columns	Remainder	Number Sentence
				12 ÷ 3 = 4
				12 ÷ 4 =
				12 ÷ 5 = R2
				12 ÷ 6 =
				12 ÷ 7 =
				□ ÷ 3 = 4 R1
				□ ÷ 5 = 2 R2
				14 ÷ 3 =
				□ ÷ 4 = 2 R1
				□ ÷ 5 = 2 R4
				□ ÷ 6 = 1 R3
				14 ÷ □ = 3 R2

MATHEMATICIAN:____

A TILE DIVISION RECORD

Tiles Used	Rows	Columns (tiles in each row)	Record
Example: 6	2	3	$\overline{)}$ (This is a Division "box")
Example: 6	2	3	$\begin{array}{r}3\\2\overline{)6}\end{array}$
6	3		$\overline{)}$
8		4	$\overline{)}$
			$3\overline{)9}$

MATHEMATICIAN: ____________________________________

A TILE DIVISION RECORD

Tiles Used	Rows	Columns (tiles in each row)	Record
10	2		
10	5		
12	3		
12	4		
12	6		

MATHEMATICIAN: ______________________________

A TILE DIVISION RECORD

Tiles Used	Rows	Columns (tiles in each row)	Record
12	4		$\overline{)}$
8		2	$\overline{)}$
10	5		$5\overline{)\,10}$
6	3		$3\overline{)\,6}$
8		2	$\begin{array}{r}2\\ \overline{)\,8}\end{array}$

MATHEMATICIAN: ____________________

A TILE DIVISION RECORD

Tiles Used	Rows	Columns (tiles in each row)	Record
21	8		
21	9		
21	10		
21	11		
21	12		

MATHEMATICIAN:______________________________

A TILE DIVISION RECORD

Tiles Used	Rows	Columns (tiles in each row)	Record
21	3		
21	4	5	$\begin{array}{r} 5\text{ R }1 \\ 4\overline{)\,21} \end{array}$
21	5		
21	6		
21	7		

MATHEMATICIAN:____________________________________

A TILE DIVISION RECORD

Tiles Used	Rows	Columns (tiles in each row)	Record
12			4 ⟌
	3	4	⟌
	2	5	⟌
10		5	⟌
12			3 ⟌

MATHEMATICIAN:____________________________________

A TILE DIVISION RECORD

Tiles Used	Rows	Columns (tiles in each row)	Record
21	3		$\overline{)}$
35	5		$\overline{)}$
42		6	$\overline{)}$
24			$4\overline{)}$
22			$2\overline{)}$

MATHEMATICIAN:____________________________________

A TILE DIVISION RECORD

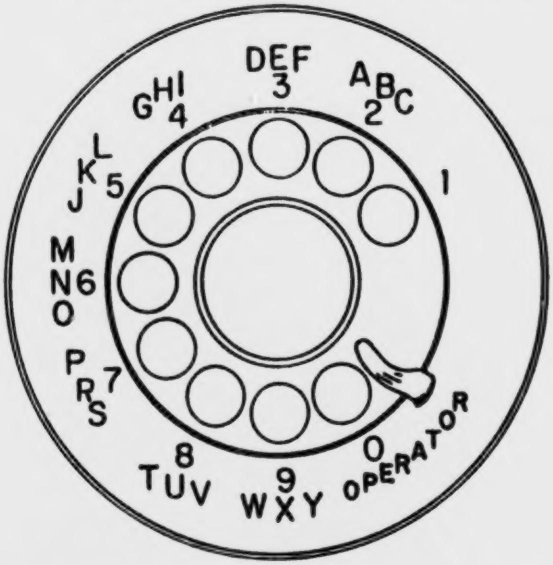
Tiles Used Example'	Rows	Columns (tiles in each row)	Record
12	3	4	$\begin{array}{r} 4 \\ 3\overline{)\,12} \end{array}$
			$\begin{array}{r} 5 \\ 2\overline{)} \end{array}$
			$\begin{array}{r} 7 \\ 3\overline{)\,21} \end{array}$
			$\begin{array}{r} 4 \\ \overline{)\,24} \end{array}$
			$\begin{array}{r} 4 \\ 5\overline{)\,20} \end{array}$

MATHEMATICIAN: ______________________________

TILE DIVISION RECORD

Tiles Used ÷	Rows	Columns	Remainder	Number Sentence

FIND THE VALUES


DEF
3
ABC
2
1
GHI
4
JKL
5
MNO
6
PRS
7
TUV
8
WXY
9
0
OPERATOR

IF YOU ADD THE VALUE OF EACH LETTER (M=6, A=2, AND SO)
THEN MATH = 6 + 2 + 8 + 4 = 20

FIND THE VALUE OF:
FUN = ____________
SUN = ____________
LAKE = ____________
SWIM = ____________
HAPPY = ____________

WRITE YOUR FIRST NAME AND FIND ITS VALUE.

________________________ = ________

FIND A WORD WORTH 12 ON THE PHONE DIAL.

____

MATHEMATICIAN:______________________________

Link Size	Number of Links Used	Cubes in the "long" link
Example: 2	2	4
	3	
	4	
	5	
	6	
	7	
	8	
	9	
	10	
3	2	
	3	
	4	
	5	
	6	
	7	
	8	
	9	
	10	
4	2	
	3	
	4	
	5	

MATHEMATICIAN:________________________________

Link Size	Number of Links Used	Cubes in the "long" link
4	6	
	7	
	8	
	9	
	10	
5	2	
	3	
	4	
	5	
	6	
	7	
	8	
6	2	
	3	
	4	
	5	
	6	
	7	
7	2	
	3	
	4	

MATHEMATICIAN:______________________________

Link Size	Number of Links Used	Cubes in the "long" link
7	5	
	6	
8	2	
	3	
	4	
	5	
9	2	
	3	
	4	
10	2	
	3	
	4	

MATHEMATICIAN:______________________________

My UNIFIX "Breakups"

Link Size	Equal Links Made
Example: 6	Two 3's and three 2's
7	None
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	

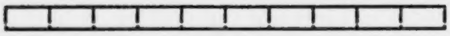
MATHEMATICIAN:________________________________

My UNIFIX "Breakups"

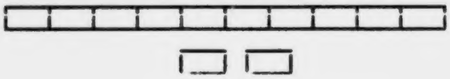
Pg. 2

Link Size	Equal Links Made
20	
21	
22	
23	
24	
25	
26	
27	
28	
29	
30	

Mathematician: ____________________



How many 2's in TEN? ☐

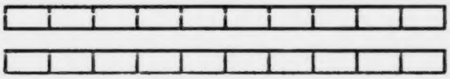


How many 3's in TWELVE? ☐

How many 4's in TWELVE? ☐

How many 6's in TWELVE? ☐

How many 2's in TWELVE? ☐

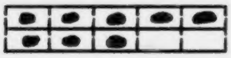


How many 10's in 20? ☐

How many 5's in 20? ☐

How many 2's in 20? ☐

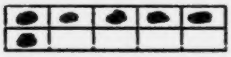
How many 4's in 20? ☐



How many 2's in 8? ☐

How many 4's in 8? ☐

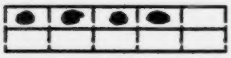
How many 1's in 8? ☐



How many 2's in 6? ☐

How many 3's in 6? ☐

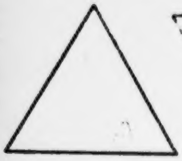
How many 6's in 6? ☐

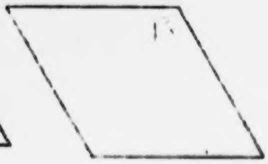


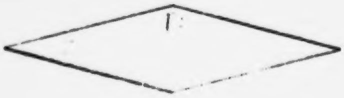
How many 2's in 4? ☐

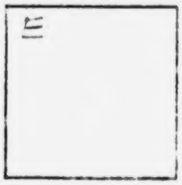
How many 4's in 4? ☐

MATHEMATICIAN:____









SHAPE	KINDS OF ANGLES
Green	
Blue	Two A's and two B's
Orange	
Red	
Yellow	

Geometry : Pattern Blocks

MATHEMATICIAN: ____________________________

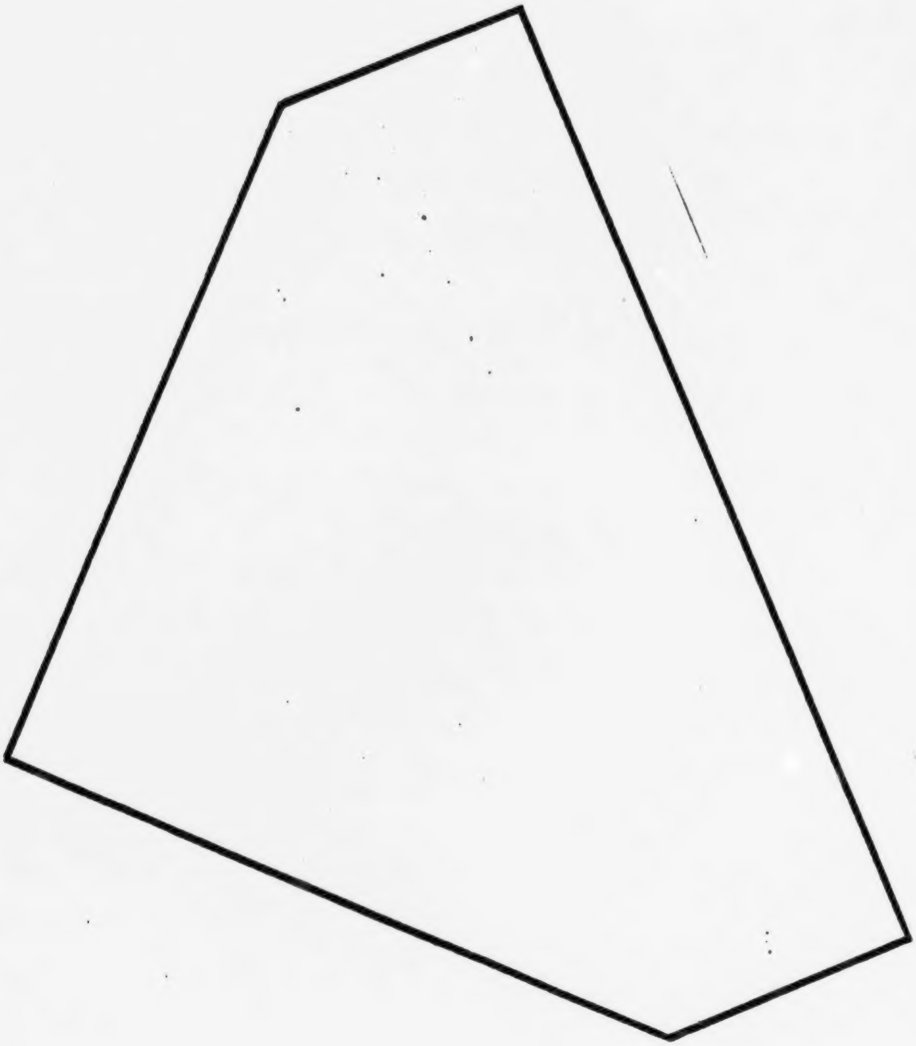
My Tangram Shapes

Number of Pieces	□	△	▭	▱	⏢
ONE					
TWO					
THREE					
FOUR					
FIVE					
SIX					
SEVEN					
EIGHT					

GEOMETRY: TANGRAMS

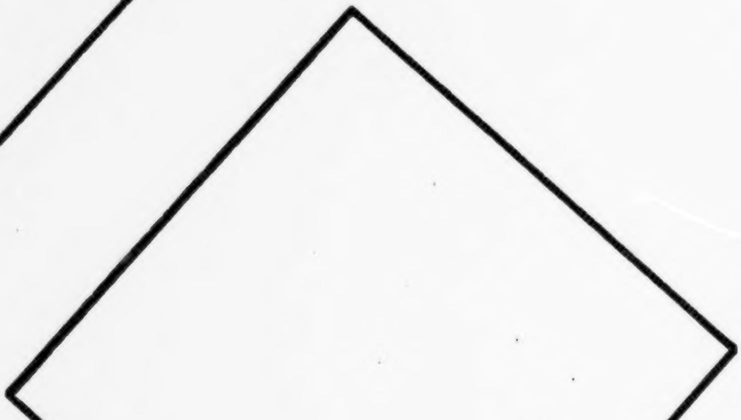
LEVEL TWO

Tangram Challenge



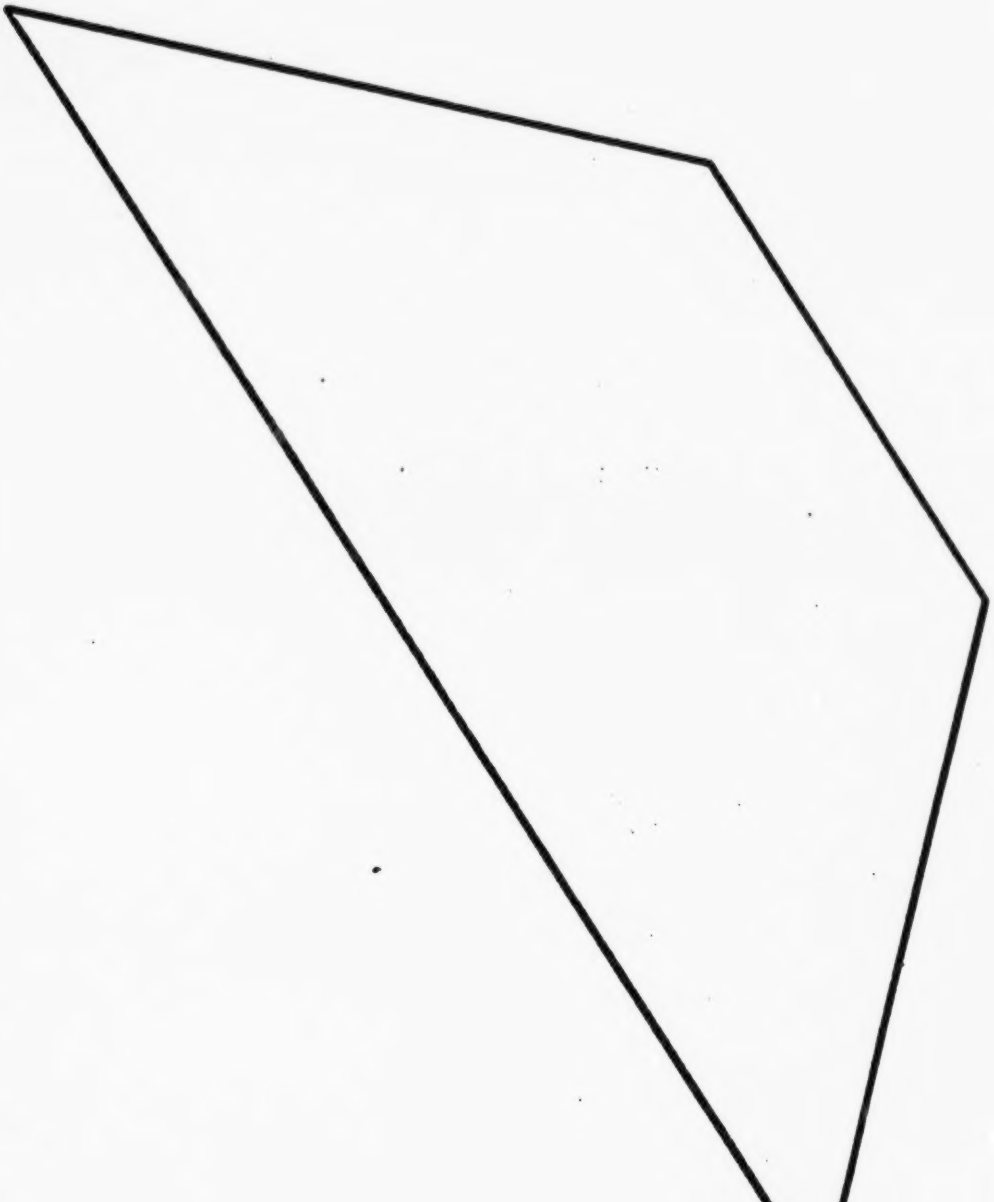
LEVEL TWO

Tangram Challenge



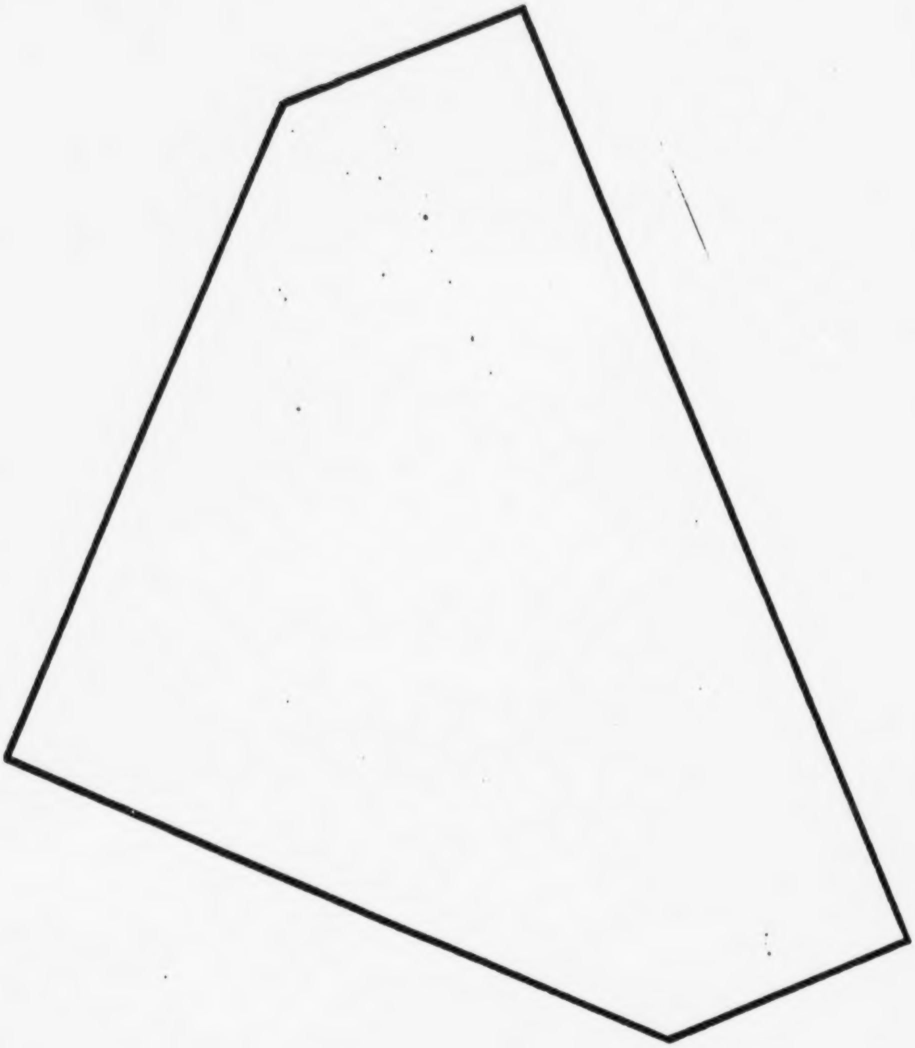
LEVEL TWO

Tangram Challenge



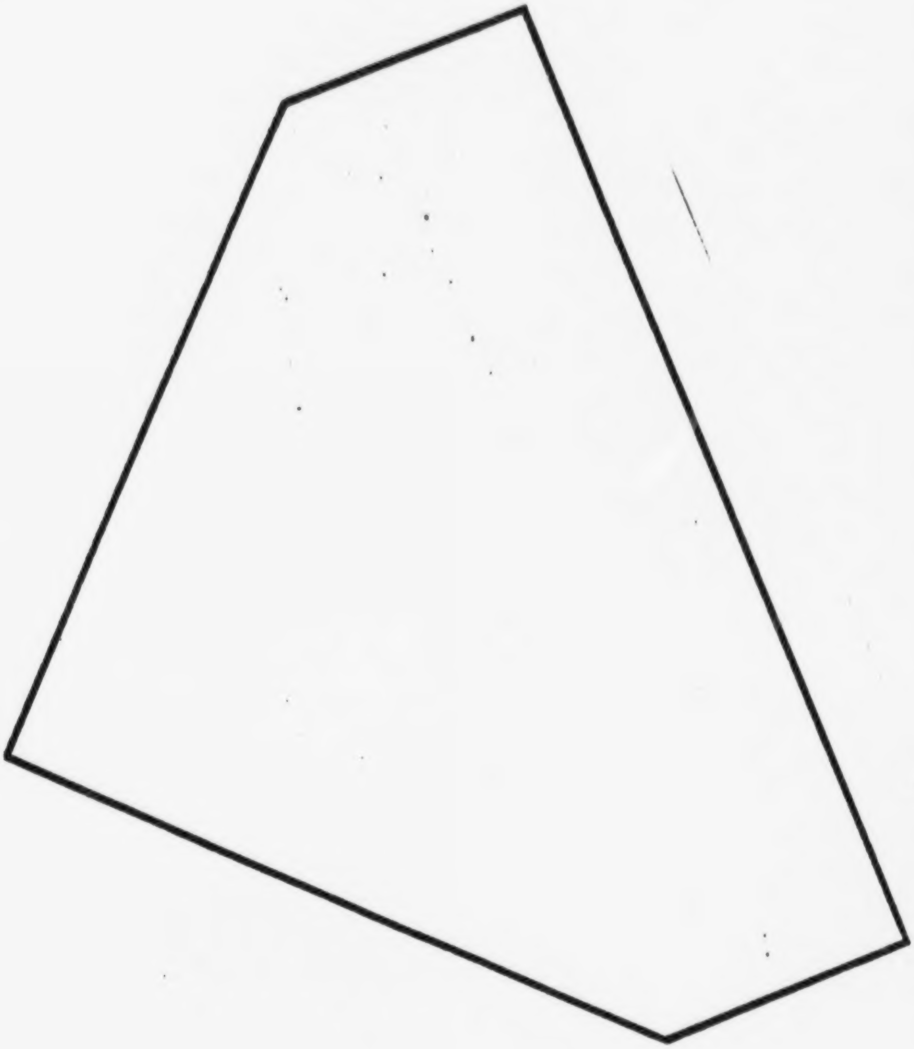
LEVEL TWO

Tangram Challenge



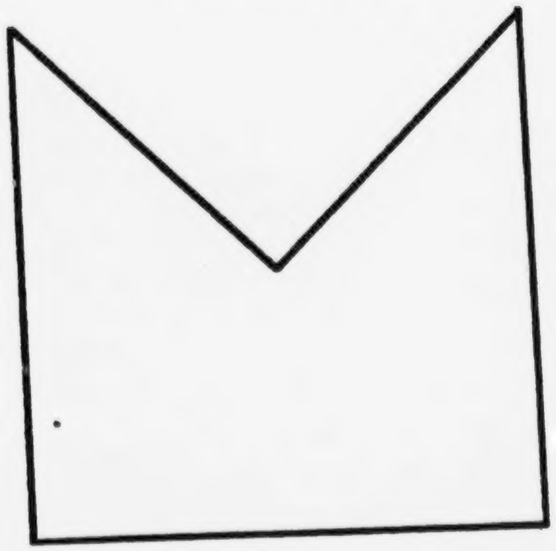
LEVEL TWO

Tangram Challenge



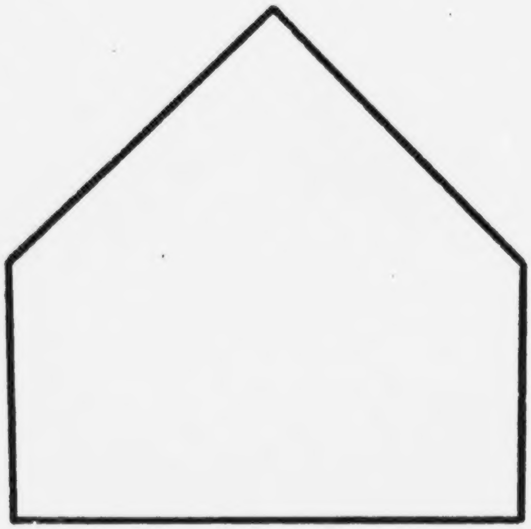
LEVEL TWO

Tangram Challenge #1



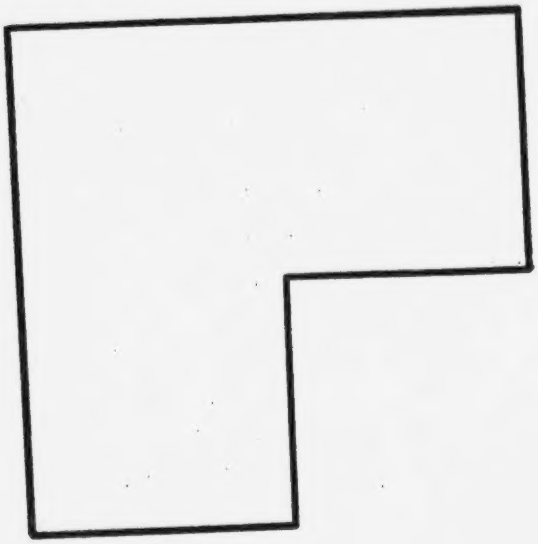
LEVEL TWO

Tangram Challenge #2



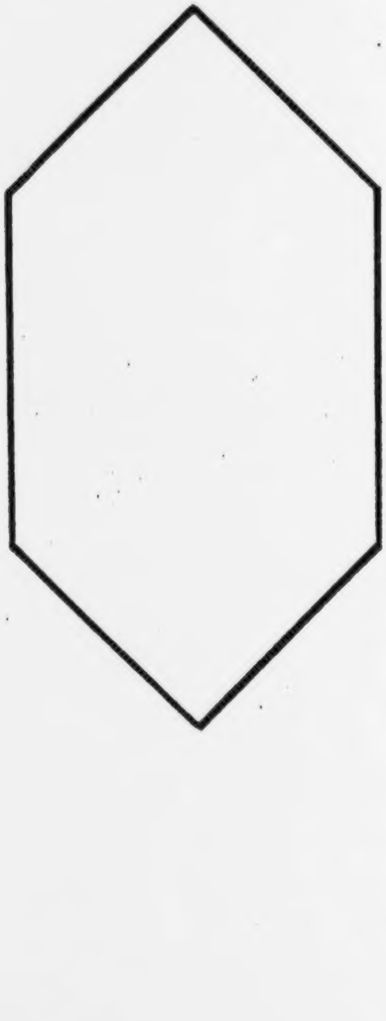
LEVEL TWO

Tangram Challenge #3



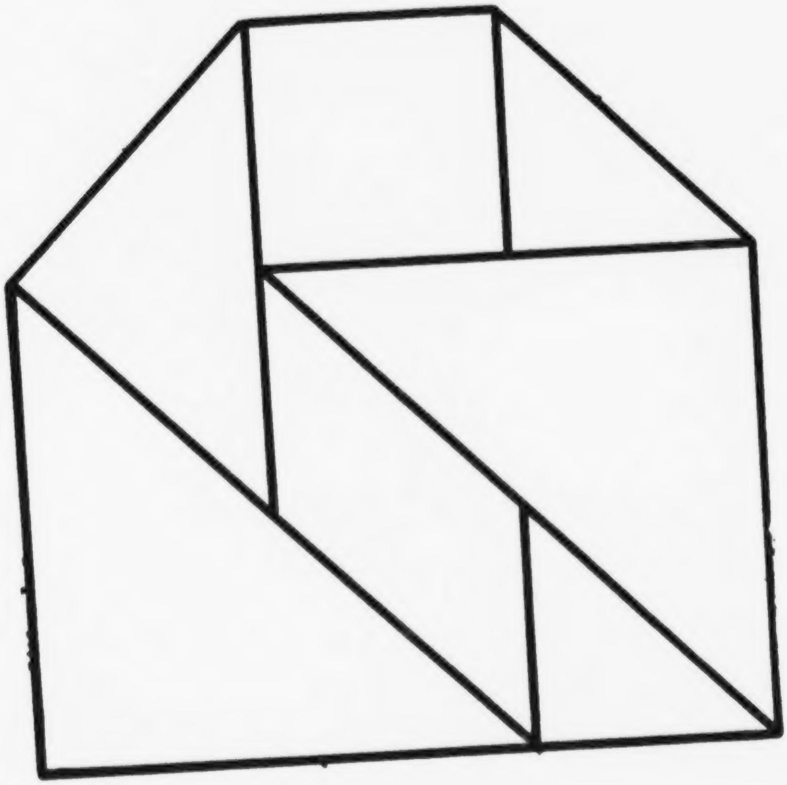
LEVEL TWO

Tangram Challenge #4



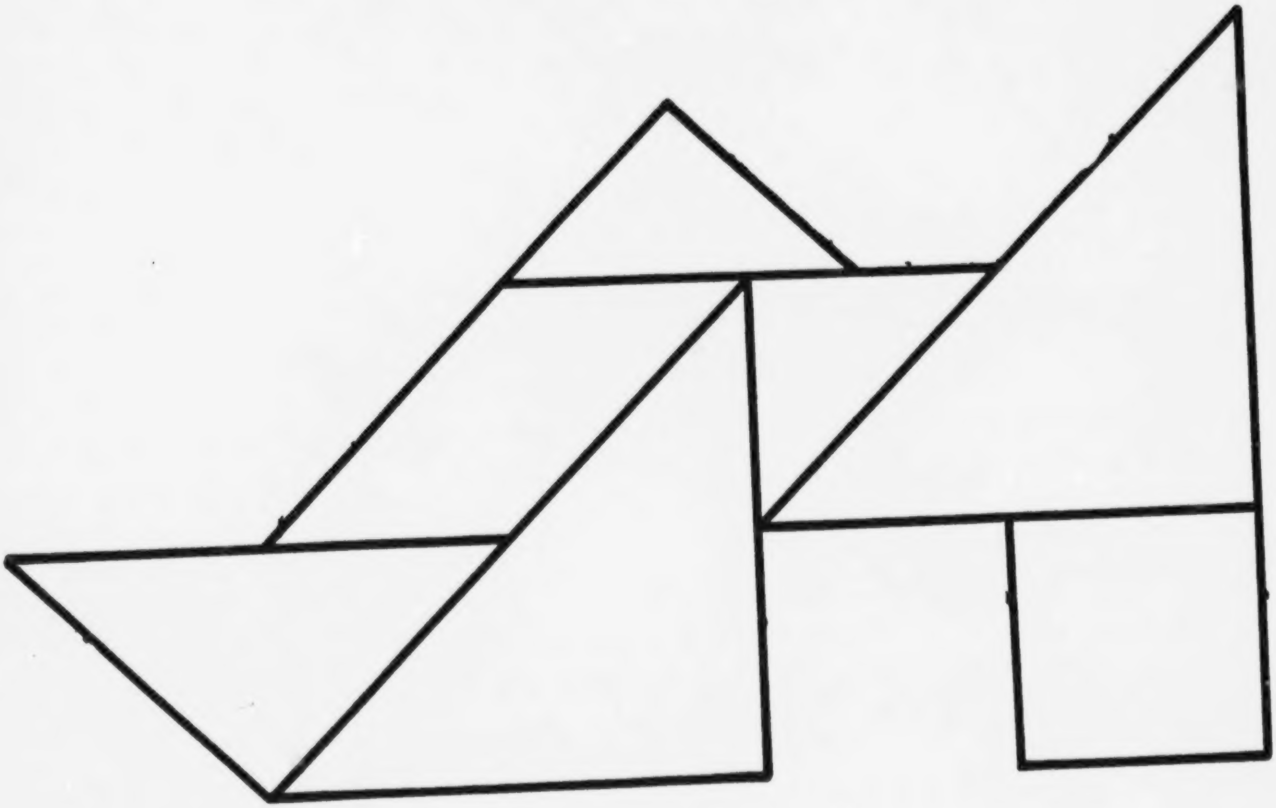
LEVEL TWO

Tangram Challenge #5



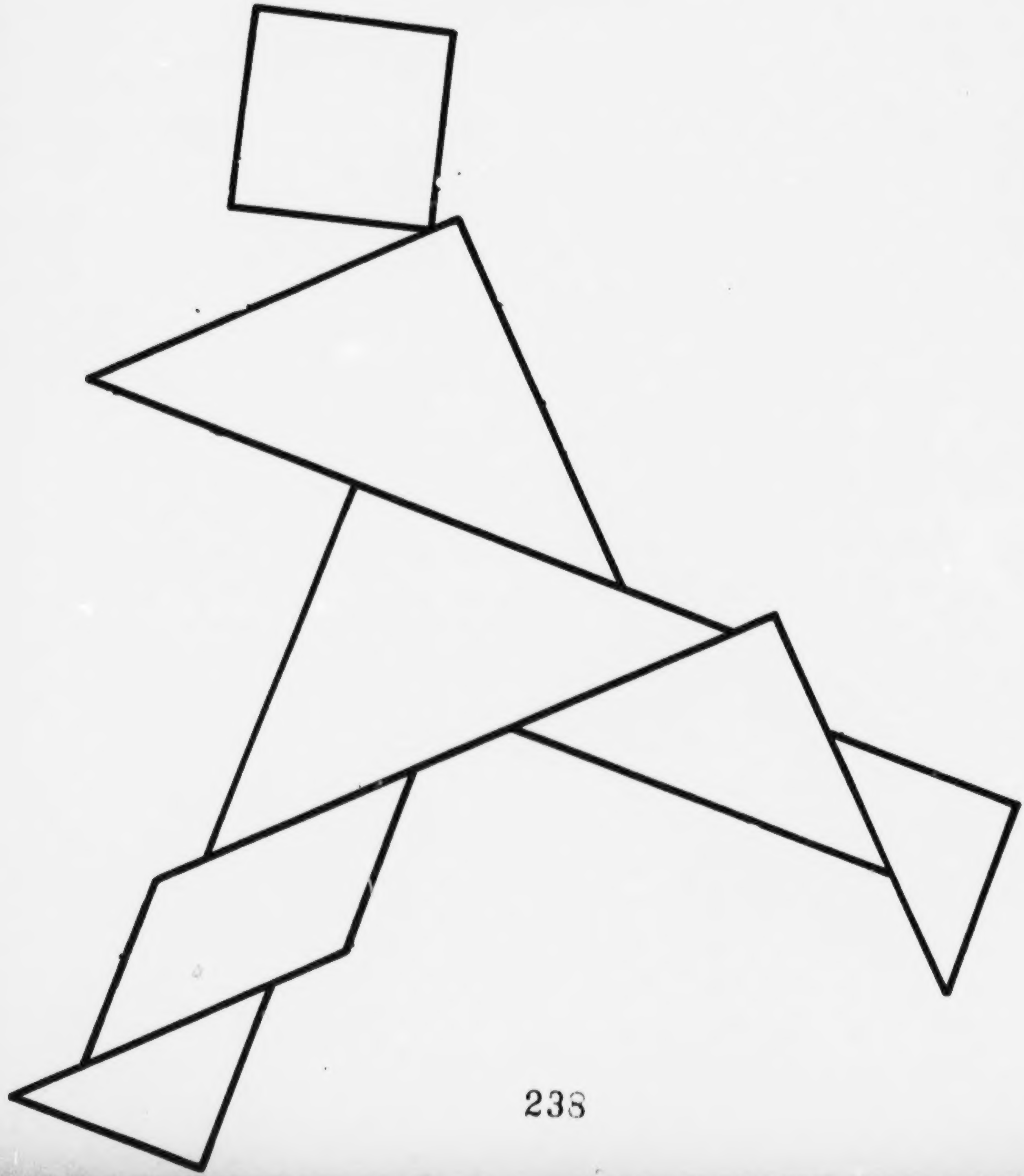
LEVEL TWO

Tangram Challenge #6



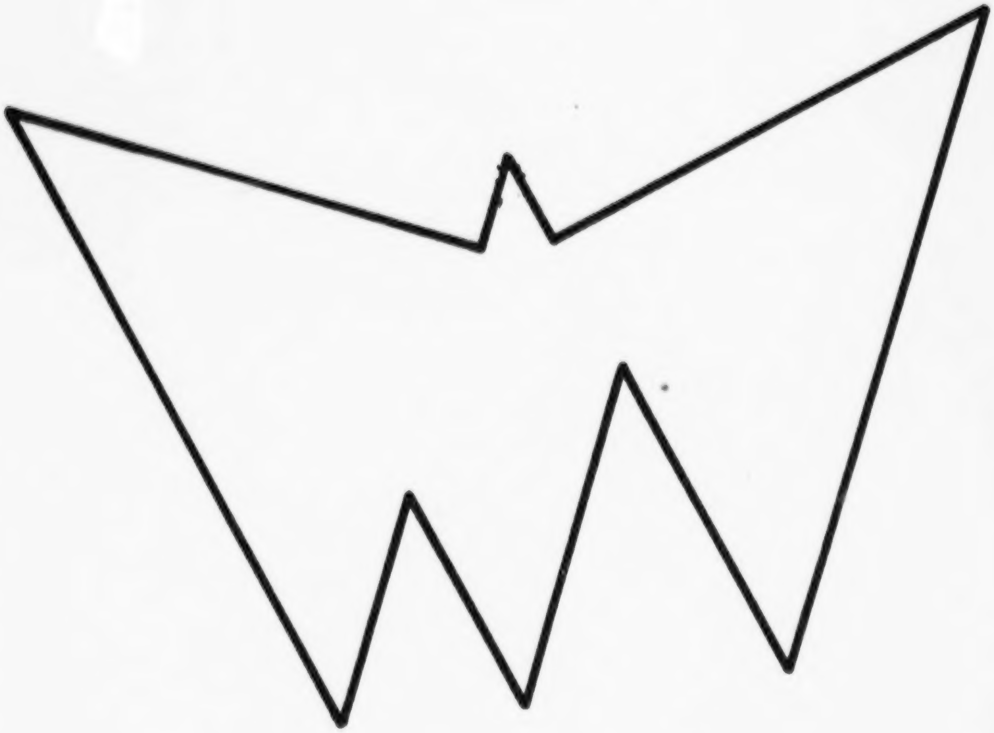
LEVEL TWO

Tangram Challenge #7



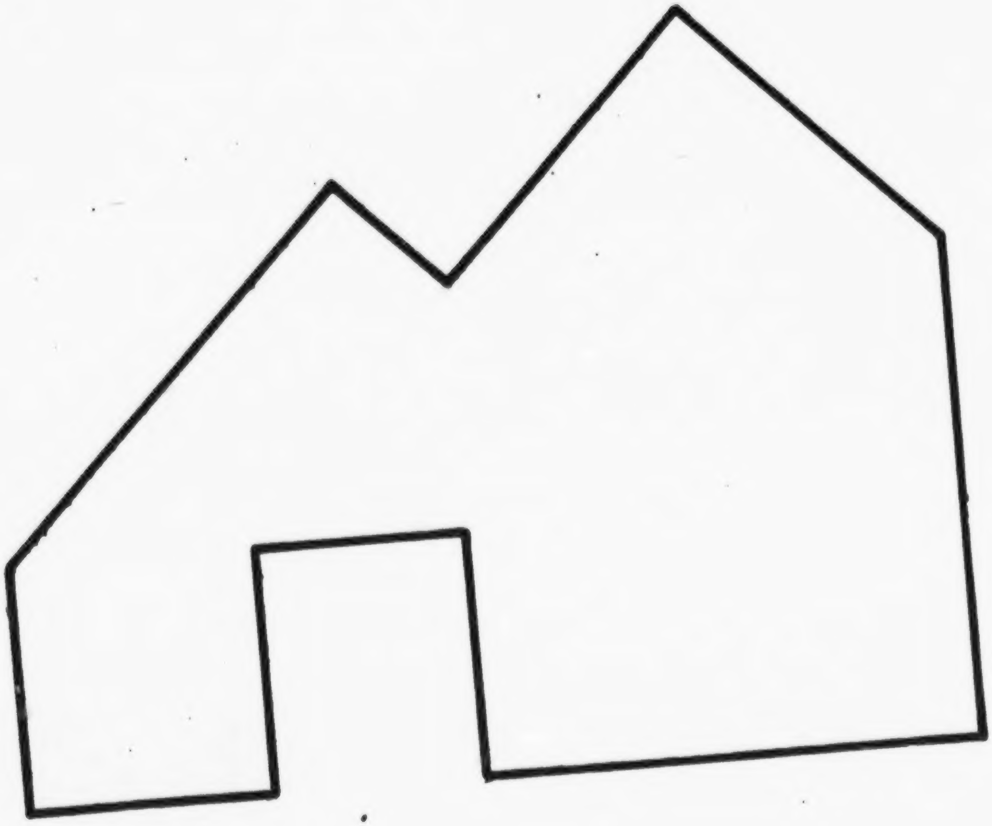
LEVEL TWO

Tangram Challenge #8



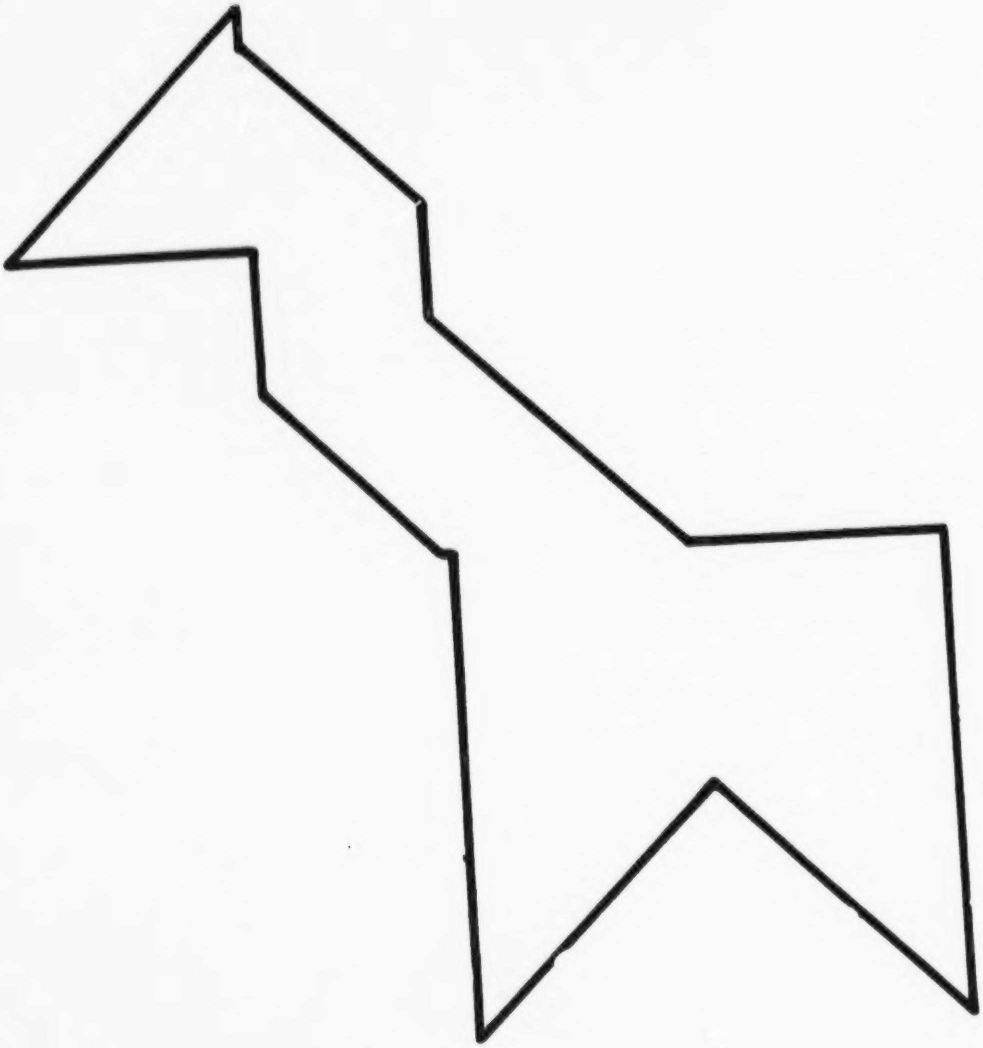
LEVEL TWO

Tangram Challenge #9



LEVEL TWO

Tangram Challenge #10



MATHEMATICIAN:______________________________

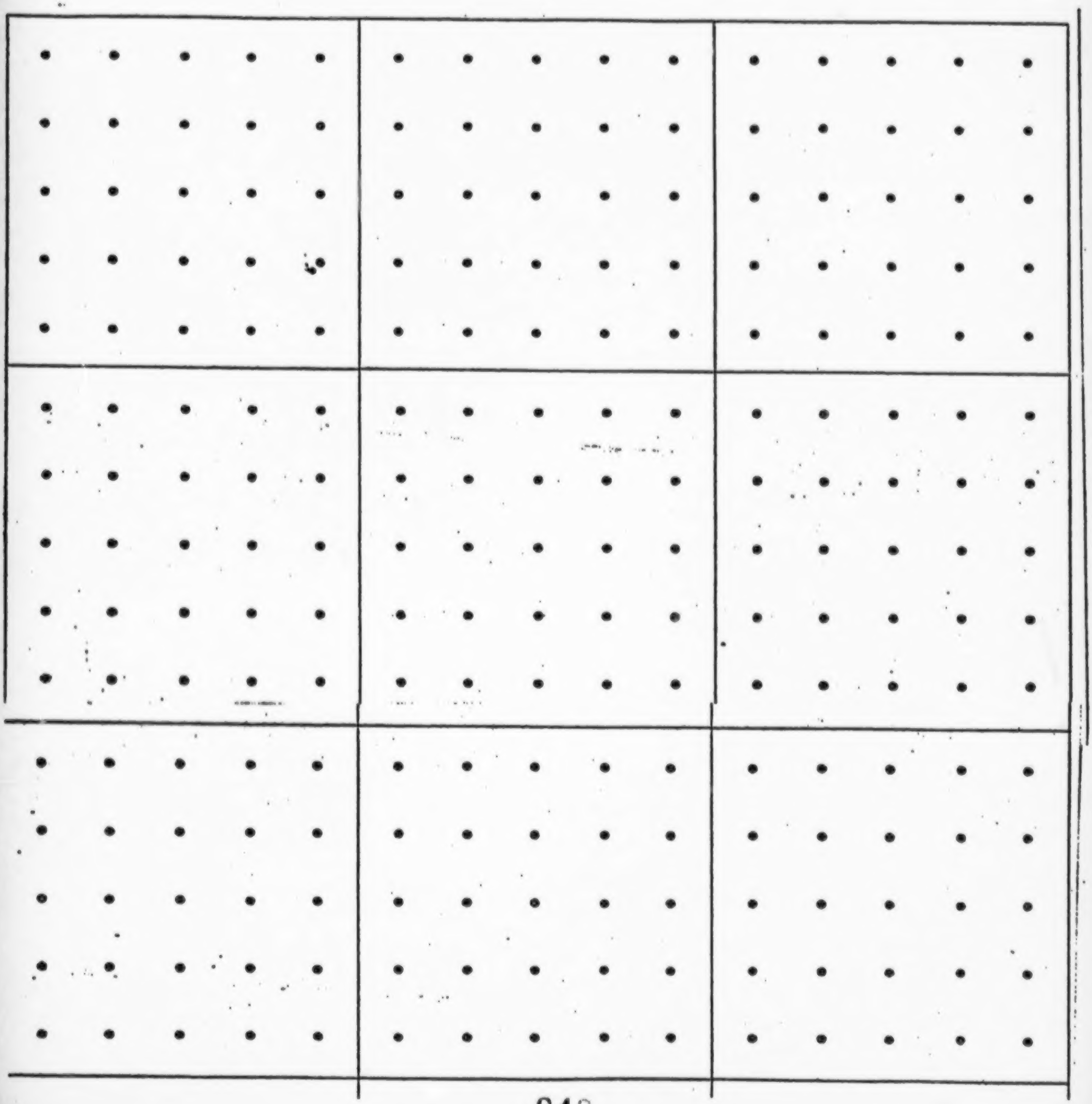
MY GEOBOARD RECORD

1	2	3	4	5
Number of sides of shapes	**Number of pins INSIDE**	**Number of Pins TOUCHING BAND**	**Number of Pins OUTSIDE**	**Number of Pins on the Board**

Geometry : Geoboards

*MATHEMATICIAN:*______________________________

My Geoboard Record



+	0	1	2	3	4	5	6	7	8	9
0	0	1	2	3	4	5	6	7	8	9
1	1	2	3	4	5	6	7	8	9	10
2	2	3	4	5	6	7	8	9	10	11
3	3	4	5	6	7	8	9	10	11	12
4	4	5	6	7	8	9	10	11	12	13
5	5	6	7	8	9	10	11	12	13	14
6	6	7	8	9	10	11	12	13	14	15
7	7	8	9	10	11	12	13	14	15	16
8	8	9	10	11	12	13	14	15	16	17
9	9	10	11	12	13	14	15	16	17	18

X	0	1	2	3	4	5	6	7	8	9
0	0	0	0	0	0	0	0	0	0	0
1	0	1	2	3	4	5	6	7	8	9
2	0	2	4	6	8	10	12	14	16	18
3	0	3	6	9	12	15	18	21	24	27
4	0	4	8	12	16	20	24	28	32	36
5	0	5	10	15	20	25	30	35	40	45
6	0	6	12	18	24	30	36	42	48	54
7	0	7	14	21	28	35	42	49	56	63
8	0	8	16	24	32	40	48	56	64	72
9	0	9	18	27	36	45	54	63	72	81

X										

Mathematician: ______________________________

COMPUTATION	PICTURE			NUMBER SENTENCE
	HUNDREDS	TENS	ONES	
	+ □	— —	×	
+ ______	□	— — — —	×××	______ + ______ = ______
46				
+ ______				______ + ______ = ______
93				
+ ______				99 = 62 + ______
	+	— — —	×	
+ ______		— — — — —	××××	______ = ______ + ______
+ 86				______ + ______ = ______
104				
	+	— — — — —	×××	
+ ______	□		×××××	______ = ______ + ______
+ ______				101 = 75 + ______

Mathematician: ______________________________

NUMBER SENTENCE	COMPUTATION FORM
Example! $31+43= 74$	$\begin{array}{r} 31 \\ +\ 43 \\ \hline 74 \end{array}$
$26-14 =$	
	$\begin{array}{r} 36 \\ +\ 21 \\ \hline \end{array}$
$= 21+36$	

Mathematician:____

NUMBER SENTENCE	COMPUTATION FORM
$= 32 - 15$	
	$\begin{array}{r} 60 \\ -37 \\ \hline \end{array}$
$28 + 33 =$	
	$\begin{array}{r} 42 \\ +39 \\ \hline \end{array}$

Mathematician: ______________________________

COMPUTATION	PICTURE HUNDREDS	TENS	ONES	NUMBER SENTENCE
Example: 22 + 11 33		|| | ||| xx x	xx x	22 + 11 = 33
+ ______		||| x || xxx		______ + ______ = ______
+ ______				38 = 24 + 14
27 + 18				______ = ______ + ______
+ ______		= xx ≡ xxx		______ + ______ = ______
+ ______				______ = 26 + 35
16 + 29				______ = ______ + ______

Mathematician: ______________________________

COMPUTATION	PICTURE			NUMBER SENTENCE
	HUNDREDS	TENS	ONES	
Example: 113 + 106 219	□ □ □□	— —	××× ×××××× ×××××××××	113 + 106 = 219
104 + 107				____ + ____ = ____
+ ____				82 = 19 + ____
73 + ____ 108				____ = ____ + ____
+ 42 99				____ + ____ = ____
+ ____	□ □□	= ≡	×× ×××××	____ = ____ + ____
+ ____				____ = 76 + 27

MATHEMATICIAN: ____________________

+ 58
24
____

+
____

61
+ ____
85

+ ____

+ ____

27
+ ____
99

____ + ____ = ____

____ + 17 = 63

____ = ____ + ____

81 + ____ = 100

21 = 15 + ____

____ + ____ = ____

21
+ ____
72

+
____

22
+ 48
____

+ ____

+ 41
____
56

+
22
____
68

____ + ____ = ____

83 = ____ + 42

____ + ____ = ____

____ = 27 + 45

____ + ____ = ____

____ = ____ + ____

MATHEMATICIAN: ______________________

Example:

21 + 32 53	21 + 32 = 53	50 − ____ 22	____ + ____ = ____
16 + 18 ____	____ + ____ = ____	16 − ____ 12	____ = ____ + ____
____	____ = 14 + 18	____	25 + ____ = 40
____	14 + ____ = 30	____	28 = 15 + ____
21 + ____ 64	____ = ____ + ____	18 + ____ 61	____ + ____ = ____
____	50 + 21 = ____	71 + 3 ____	____ = ____ + ____

MATHEMATICIAN: ____

Example:

28
− 15
13

28 − 15 = 13

____

____ − 16 = 24

75
− ____
50

21 = ____ − 16

□
− 14
26

____ ____ = ____

____

21 = 43 − ____

16
− ____
8

____ ____ = ____

23
− 14
____

____ ____ = ____

____

____ = 32 − 15

21
− ____
6

____ − 23 = 20

40
− 11
____

____ = ____ ____

30
− ____
18

____ ____ = ____

____

____ = 27 − 19

MATHEMATICIAN: ________________________

Example!

41 + 26 67	41 + 26 = 67	52 + 21	_____ + _____ = _____
+ _____	36 + 32 = _____	+ _____	36 = 28 + _____
18 + 17	_____ = _____ + _____	+ _____	51 + 21 = _____
+ _____	21 + 21 = _____	32 + 62	_____ = _____ + _____
23 + 47	_____ = _____ + _____	+ _____	18 + 49 = _____
+ _____	26 + 38 = _____	20 + 18	_____ = _____ + _____

MATHEMATICIAN:____

Picture/Numerals Worksheet

Picture		Numerals	
▭	□	**TENS**	**ONES**
—— ——	××		
+ —— —— ——	×		

▭	□	**TENS**	**ONES**
		2	1
		+ 4	2

MATHEMATICIAN:____

Picture/Numerals Worksheet

Picture **Numerals**

▭	□	TENS	ONES
— — —	× × × × × ×		
– — —	× × ×		

▭	□	TENS	ONES
		3	5
		− 2	1

MATHEMATICIAN:____

Picture/Numerals Worksheet

Picture		Numerals	
▭	□	**TENS**	**ONES**
— — — —	×		
+ — — —	×××		

▭	□	**TENS**	**ONES**
		7	4
		− 4	1

MATHEMATICIAN:____

Picture/Numerals Worksheet

Picture		Numerals	
▭	□	**TENS**	**ONES**
		3	5
		+ 1	8

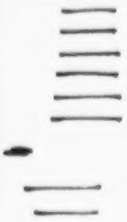
▭	□	**TENS**	**ONES**
— — — — —	× × ×		
- —	× × × × × × × ×		

MATHEMATICIAN:____

Picture/Numerals Worksheet

Picture **Numerals**

▭	□	TENS	ONES
		2 + 3	9 1

▭	□	TENS	ONES
	××××× ××××		

MATHEMATICIAN:____

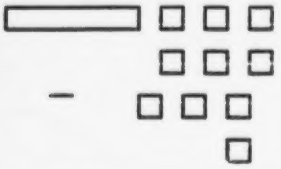
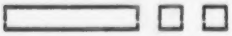
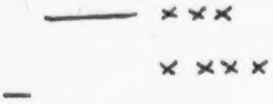
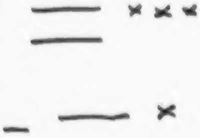
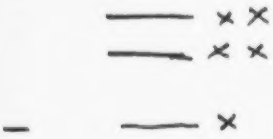
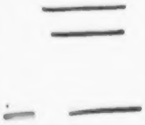
Picture/Numerals Worksheet

Picture		Numerals	
▭	□	**TENS**	**ONES**
— — —	×××		
+ — —	××××		

▭	□	**TENS**	**ONES**
		5	7
		- 2	4

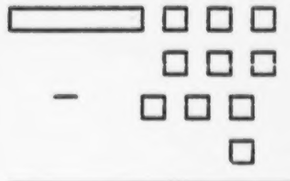
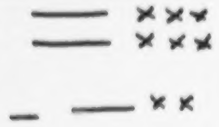
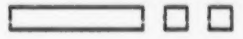
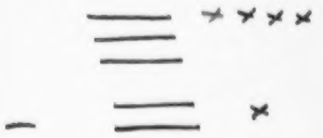
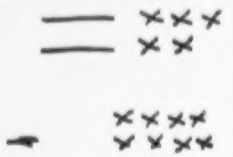
Mathematician: ______________________

My Base Ten Block Record

Picture **Example:**	**Numerals**		**Picture**	**Numerals**	
	**TENS**	**ONES**		**TENS**	**ONES**
	1 -	6 4		1 –	7 8
	1	2			
	TENS	**ONES**		**TENS**	**ONES**
	2 -1	2 1		2 – 1	1 0
	**TENS**	**ONES**		**TENS**	**ONES**
	**TENS**	**ONES**		**TENS**	**ONES**

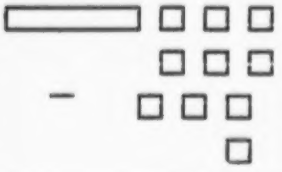
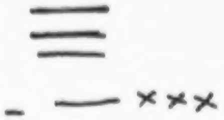
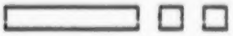
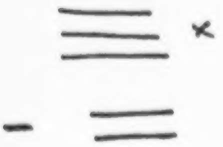
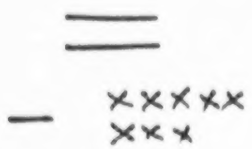
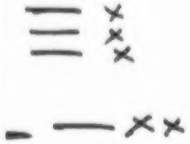
*Mathematician:*______________________________

My Base Ten Block Record

Picture Example:	Numerals		Picture	Numerals	
	TENS	ONES		TENS	ONES
	1 -	6 4			
	1	2			
	TENS	ONES		TENS	ONES
				2 -	3 7
	TENS	ONES		TENS	ONES
	2 - 1	8 3			
	TENS	ONES		TENS	ONES
	3 - 1	1 8		1 -	4 6

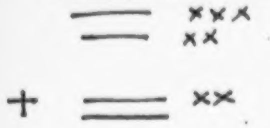
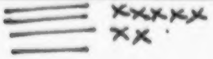
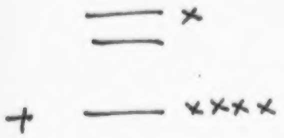
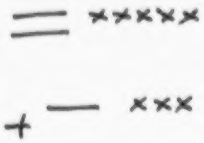
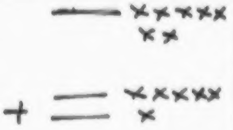
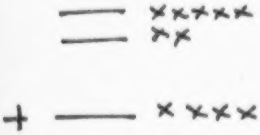
Mathematician: ______________________________

My Base Ten Block Record

Picture Example:	Numerals		Picture	Numerals	
	TENS	ONES		TENS	ONES
	1 -	6 4			
	1	2			
	TENS	ONES		TENS	ONES
				3 -2	0 0
	TENS	ONES		TENS	ONES
	TENS	ONES		TENS	ONES
	2 -1	3 7		3 -2	2 3

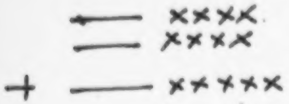
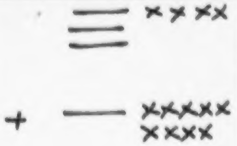
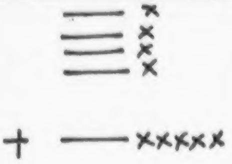
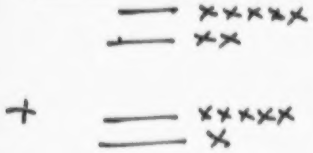
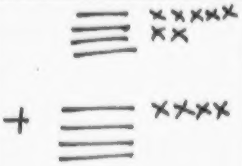
Mathematician: ______________________________

My Base Ten Block Record

Picture Example:	Numerals		Picture	Numerals	
	**TENS**	**ONES**		**TENS**	**ONES**
	2 + 2	5 2		2 + 2	3 7
	4	7			
	**TENS**	**ONES**		**TENS**	**ONES**
	TENS	**ONES**		**TENS**	**ONES**
	2 + 1	3 4			
	**TENS**	**ONES**		**TENS**	**ONES**
				3 + 2	1 9

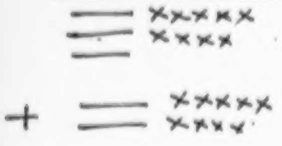
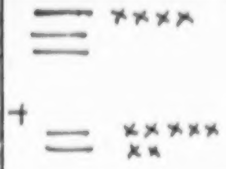
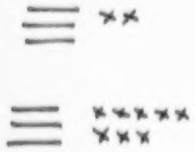
Mathematician: ______________________________

My Base Ten Block Record

Picture **Example:**	Numerals		Picture	Numerals	
	TENS	ONES		TENS	ONES
	TENS	ONES		TENS	ONES
	1 +2	9 2			
	TENS	ONES		TENS	ONES
				4 +2	6 8
	TENS	ONES		TENS	ONES
	3 +2	0 1		4 +4	7 4

*Mathematician:*______________________________

My Base Ten Block Record

Picture **Example:**	**Numerals**		**Picture**	**Numerals**	
	**TENS**	**ONES**		**TENS**	**ONES**
	TENS	**ONES**		**TENS**	**ONES**
	3 +2	1 9		2 +2	2 2
	**TENS**	**ONES**		**TENS**	**ONES**
				3 +3	7 8
	TENS	**ONES**		**TENS**	**ONES**
	2 +2	7 2		1 +2	8 8

MATHEMATICIAN: ____________________

TILES MULTIPLICATION RECORD

ROWS X	COLUMNS =	TILES USED	Number Sentence
2	3	6	2 X 3 = 6
2	4		
2	5		
2	6		
2	7		
2	8		
2	9		
2	10		
3	1		
3	2		
3	3		
3	4		
3	5		
3	6		
3	7		
3	8		

MATHEMATICIAN: ______________________________

TILES MULTIPLICATION RECORD

ROWS X	COLUMNS =	TILES USED	Number Sentence
3	9		
3	10		
4	2		
4	3		
4	4		
4	5		
4	6		
4	7		
4	8		
4	9		
4	10		
5	2		
5	3		
5	4		
5	6		

MATHEMATICIAN: ______________________________

TILES MULTIPLICATION RECORD

ROWS X	COLUMNS =	TILES USED	Number Sentence
5	7		
5	8		
5	9		
5	10		
6	2		
6	3		
6	4		
6	6		
6	7		
6	8		
6	9		
6	10		

*MATHEMATICIAN:*____

My Multiplication Record Using Tiles

ROWS (X)	COLUMNS (=)	TILES USED	NUMBER SENTENCES
2		8	
	3	9	
		12	12 = 2×6
3	4		
3		15	
2		12	
3			12 = 3 ×4
	5	10	
2	7		
4			12 = 4×3
5			5× 2 = 10
6		12	

*MATHEMATICIAN:*______________________________

My Multiplication Record Using Tiles

ROWS (X)	COLUMNS (=)	TILES USED	NUMBER SENTENCES
5		15	
			18 = 3×6
	4		5 × 4 = 20
6		6	
5		10	
3		3	
			5 × 1 = 5
4	2		
4		16	
6		12	
			16 = 2×8
7		7	

MATHEMATICIAN: ______________________

My Multiplication Record Using Tiles

ROWS (X)	COLUMNS (=)	TILES USED	NUMBER SENTENCES
			6 × 4 = 24
			2 × 3 = 6
			12 = 3 × 4
			12 = 4 × 3
			15 = 5 × 3
			3 × 5 = 15
			4 × 2 = 8
			8 = 2 × 4
			10 = 5 × 2
			2 × 5 = 10
			6 × 2 = 12
			2 × 6 = 12

MATHEMATICIAN: ______________________________

My Multiplication Record Using Tiles

ROWS (X)	COLUMNS (=)	TILES USED	NUMBER SENTENCES
			2 × 3 =
			3 × 3 =
			= 3 × 4
			= 4 × 5
			4 × 4 =
			4 × 6 =
			= 3 × 5
			= 3 × 6
			4 × 7 =
			= 2 × 6
			= 2 × 5
			2 × 4 =

MATHEMATICIAN: ____________________

My Multiplication Record Using Tiles

ROWS (X)	COLUMNS (=)	TILES USED	NUMBER SENTENCES
			□ × 3 = 12
			4 × □ = 16
			3 × 5 =
			4 × 8 =
			= 4 × 9
			□ × 5 = 35
			= 5 × 5
			5 × 6 =
			6 × 7 =
			= 5 × 8
			6 × 6 =
			= 6 × 8

*MATHEMATICIAN:*____

My Multiplication Record Using Tiles

ROWS (X)	COLUMNS (=)	TILES USED	NUMBER SENTENCES
	3	24	
4		16	
5		35	
	2	8	
	3	12	
3		15	
3		21	
	2	10	
2	8		
2		20	
3		24	
	5	15	

MATHEMATICIAN: ______________________________

My Multiplication Record Using Tiles

ROWS (X)	COLUMNS (=)	TILES USED	NUMBER SENTENCES
3	6		
	9	18	
			$2 \times \square = 10$
			$3 \times 4 =$
			$= 4 \times 5$
4		24	
	6	12	
			$3 \times 8 =$
2	2		
7	3		
	3	18	
7		21	

*MATHEMATICIAN:*______________________________

My Multiplication Record Using Tiles

ROWS (X)	COLUMNS (=)	TILES USED	NUMBER SENTENCES

X	0	1	2	3	4	5	6	7	8	9
0	0	0	0	0	0	0	0	0	0	0
1	0	1	2	3	4	5	6	7	8	9
2	0	2	4	6	8	10	12	14	16	18
3	0	3	6	9	12	15	18	21	24	27
4	0	4	8	12	16	20	24	28	32	36
5	0	5	10	15	20	25	30	35	40	45
6	0	6	12	18	24	30	36	42	48	54
7	0	7	14	21	28	35	42	49	56	63
8	0	8	16	24	32	40	48	56	64	72
9	0	9	18	27	36	45	54	63	72	81

*MATHEMATICIAN:*____________________________________

My Multiplication Record Using Tiles

ROWS (X)	COLUMNS (=)	TILES USED	NUMBER SENTENCES

*MATHEMATICIAN:*____________________________________

My Multiplication Record Using Tiles

ROWS (X)	COLUMNS (=)	TILES USED	NUMBER SENTENCES

*MATHEMATICIAN:*____

My Multiplication Record Using Tiles

ROWS (X)	COLUMNS (=)	TILES USED	NUMBER SENTENCES

MATHEMATICIAN: ____________________

My Multiplication Record Using Tiles

ROWS (X)	COLUMNS (=)	TILES USED	NUMBER SENTENCES

*MATHEMATICIAN:*____

My Multiplication Record Using Tiles

ROWS (X)	COLUMNS (=)	TILES USED	NUMBER SENTENCES

MATHEMATICIAN: ____________________

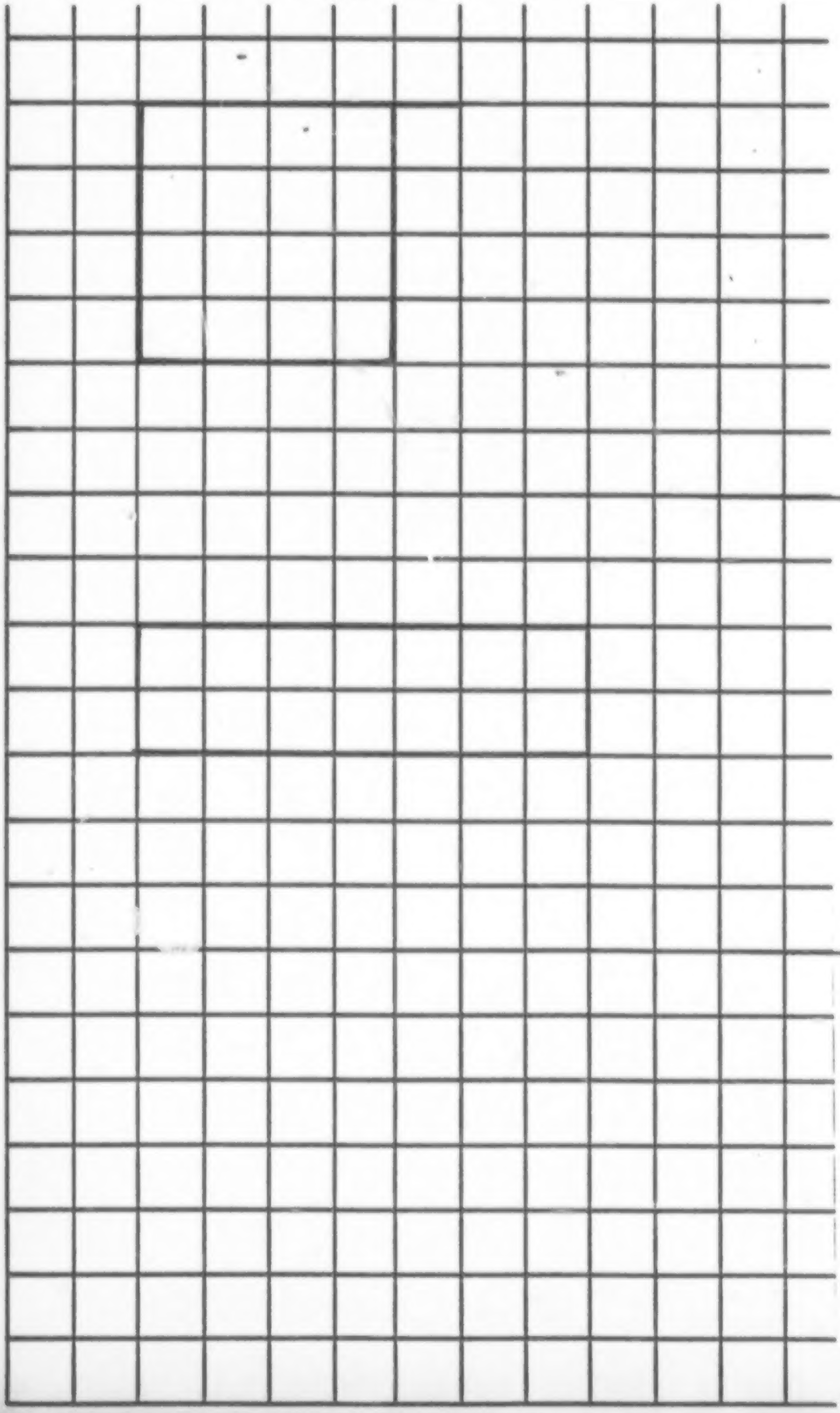
My Multiplication Record Using Tiles

ROWS (X)	COLUMNS (=)	TILES USED	NUMBER SENTENCES

MATHEMATICIAN________________________

Recording Multiplication Rectangles

Tile Rectangle **Number Sentence**

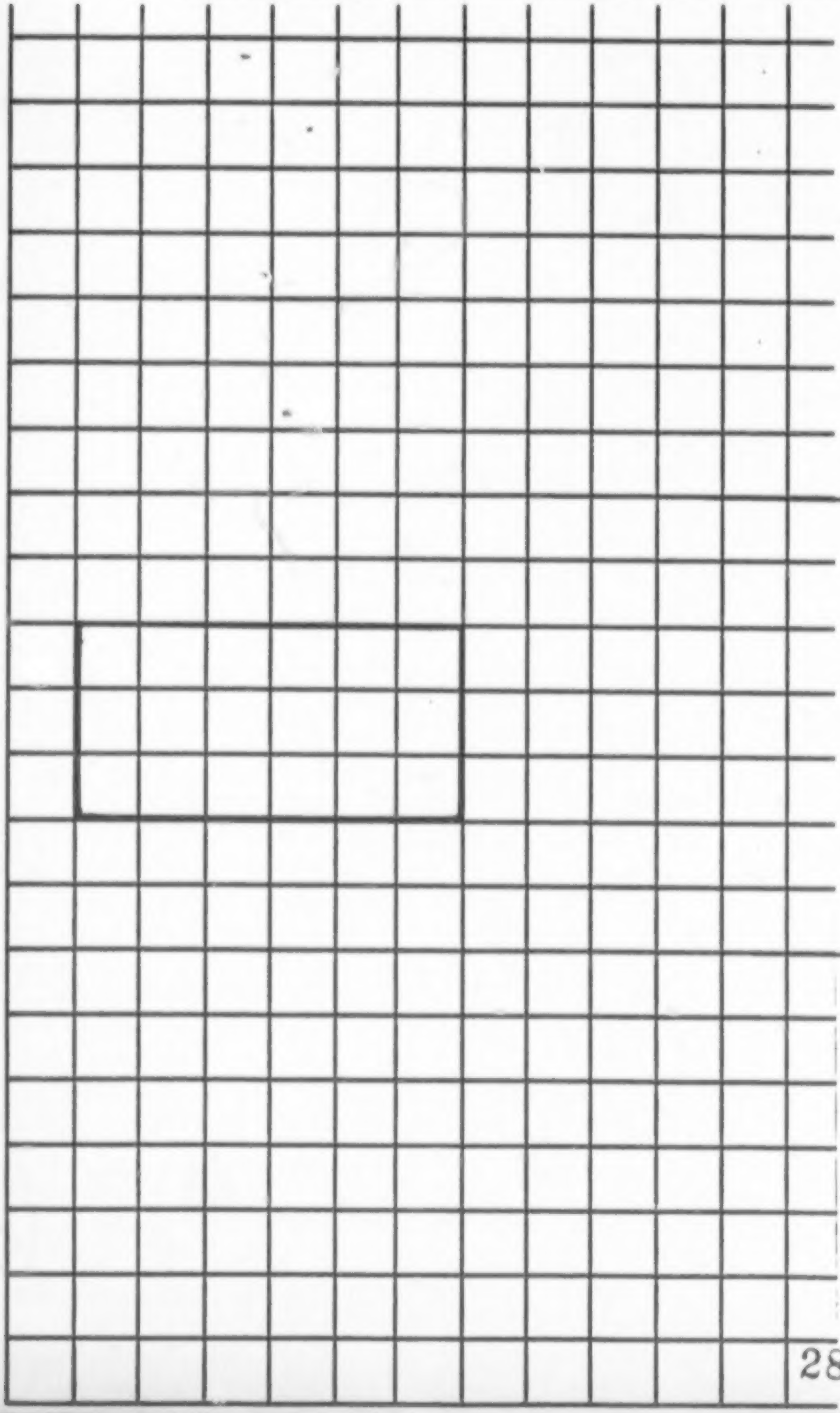


15 = 3 × 5

*MATHEMATICIAN*____________________________________

Recording Multiplication Rectangles

Tile Rectangle **Number Sentence**



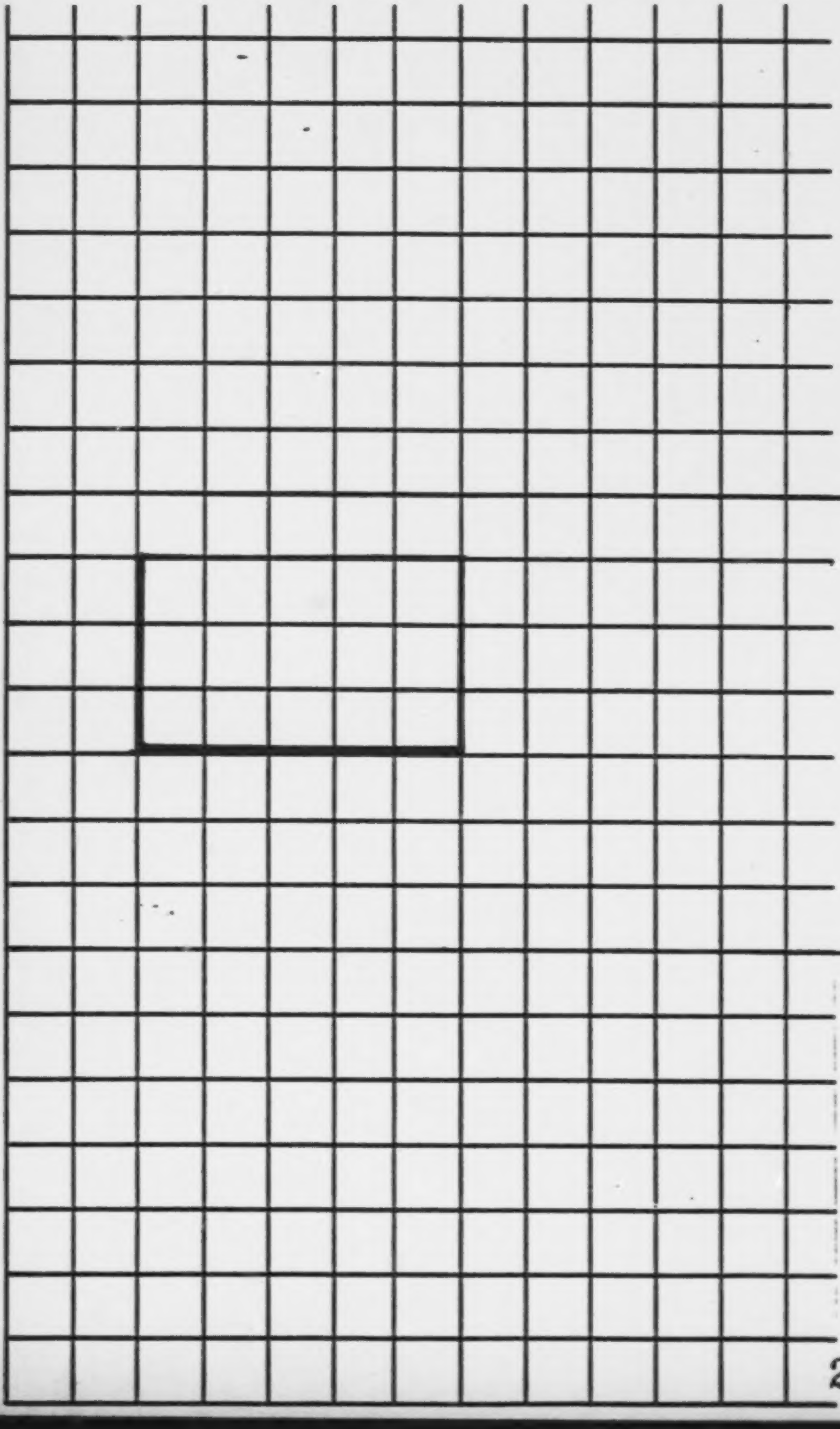
1 × 5 = 5

9 = 3×3

MATHEMATICIAN______________________________

Recording Multiplication Rectangles

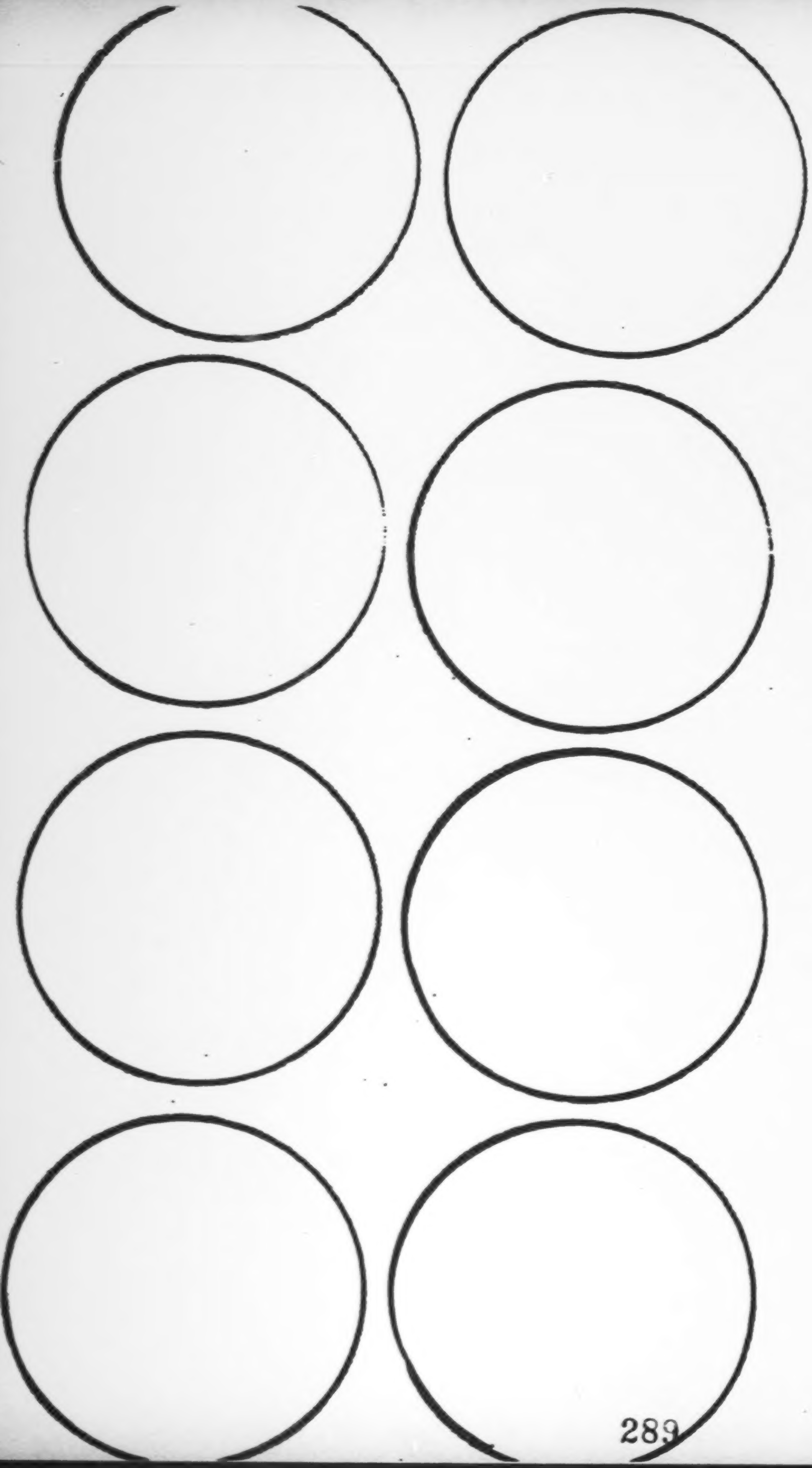
Tile Rectangle **Number Sentence**



4 x 3 = 12

12 = 2 x 6

BEAN "CUPS"



MATHEMATICIAN: ______________________________

BEANS MULTIPLICATION RECORD

Beans in Each Cup x	Number of Cups =	Beans Used	Number Sentence
1	2	2	1 x 2 = 2
2	2	4	2 x 2 = 4
3	2		
4	2		
5	2		
6	2		
7	2		
8	2		
9	2		
10	2		
1	3		
2	3		
3	3		
4	3		
5	3		

MATHEMATICIAN: ______________________________

BEANS MULTIPLICATION RECORD

Beans in Each Cup x	Number of Cups =	Beans Used	Number Sentence
1	7	7	1×7=7
2	7		
3	7		
4	7		
5	6		
6	7		
7	7		
8	7		
9	7		
10	7		
1	8		
2	8		
3	8		
4	8		
5	8		
6	8		

MATHEMATICIAN: ____________________

BEANS MULTIPLICATION RECORD

Beans in Each Cup x	Number of Cups =	Beans Used	Number Sentence
7	8		
8	8		
9	8		
10	8		
1	9		
2	9		
3	9		
4	9		
5	9		
6	9		
7	9		
8	9		
9	9		
10	9		
1	10		
2	10		

MATHEMATICIAN: ______________________________

BEANS MULTIPLICATION RECORD

Beans in Each Cup x	Number of Cups =	Beans Used	Number Sentence
3	10		
4	10		
5	10		
6	10		
7	10		
8	10		
9	10		
10	10		

MATHEMATICIAN: ______________________________

BEANS MULTIPLICATION RECORD

Beans in Each Cup x	Number of Cups =	Beans Used	Number Sentence
4	5		
5	5		
6	5		
7	5		
8	5		
9	5		
10	5		
1	6		
2	6		
3	6		
4	6		
5	6		
6	6		
7	6		
8	6		
9	6		
10	6		

MATHEMATICIAN: ______________________________

BEANS MULTIPLICATION RECORD

Beans in Each Cup x	Number of Cups =	Beans Used	Number Sentence
6	3		
7	3		
8	3		
9	3		
10	3		
1	4		
2	4		
4	4		
5	4		
6	4		
7	4		
8	4		
9	4		
10	4		
1	5		
2	5		
3	5		

MATHEMATICIAN: ____________________

BEANS MULTIPLICATION RECORD

Beans in Each Cup x	Number of Cups =	Beans Used	Number Sentence

MATHEMATICIAN: ______________________________

BEANS MULTIPLICATION RECORD

Beans in Each Cup x	Number of Cups =	Beans Used	Number Sentence

MATHEMATICIAN: ______________________

BEANS MULTIPLICATION RECORD

Beans in Each Cup x	Number of Cups =	Beans Used	Number Sentence
3		12	
	2	16	
2		10	
3		18	
	3	15	
4		28	
	4	24	
6		18	
5		20	
	6	36	
3		9	
	4	16	
5		25	
	6	36	
2		4	
5	3		

MATHEMATICIAN: ______________________________

BEANS MULTIPLICATION RECORD

Beans in Each Cup ×	Number of Cups =	Beans Used	Number Sentence
			$3 \times 4 = 12$
			$2 \times 3 =$
			$2 \times 4 =$
			$3 \times 3 =$
			$= 3 \times 4$
			$= 4 \times 5$
			$\square \times 2 = 8$
			$\square \times 3 = 12$
			$= 5 \times 6$
			$= 7 \times 3$
			$= 4 \times 2$
			$\square \times 9 = 18$
			$\square \times 7 = 14$
			$4 \times 5 =$
			$3 \times 8 =$
			$3 \times \square = 27$

MATHEMATICIAN: ______________________________

BEANS MULTIPLICATION RECORD

Beans in Each Cup x	Number of Cups =	Beans Used	Number Sentence
3		12	3 × □ =
	4		□ × 4 = 16
		12	4 × 3 =
5	3		= 15
6	2		
	3	18	
			4 × □ = 24
2		8	
	3	9	□ × 3 =
2		16	
6		36	
5	2		
	3	21	
2	4		8 =
3	2		6 =
4	3		
2	9		

*MATHEMATICIAN:*______________________________

BEANS DIVISION RECORD 1

Beans Used	÷ Beans in each cup	= Cups Used	Remainder	Number Sentence

MATHEMATICIAN: ______________________________

BEANS DIVISION RECORD 2

Beans Used ÷	Cups =	Beans needed in each cup	Remainder	Number Sentence

MATHEMATICIAN: ______________________________

BEANS DIVISION RECORD 1

Beans Used ÷	Beans in each cup	= Cups Used	Remainder	Number Sentence
15	2			
18	3			
19	3			
19	4			
19	5			
19	6			
19	7			
19	8			
19	9			
23	4			
23	5			
23	6			

MATHEMATICIAN: ______________________

BEANS DIVISION RECORD 1

Beans Used ÷	Beans in each cup	= Cups Used	Remainder	Number Sentence
	3	7	1	
	2	5	1	
	3	2	1	
	6	3	2	
	4	3	1	
	5	2	4	
	6	3	3	
	5	4	1	
21		4	1	
22	5		2	
25	3		1	
	2	4	0	

*MATHEMATICIAN:*______________________________

BEANS DIVISION RECORD 1

Beans Used ÷	Beans in each cup	= Cups Used	Remainder	Number Sentence
4	2	2	0	0 4÷2=2
5	2			
6	2			
7	2			
8	2			
9	2			
10	2			
11	2			
12	2			
13	2			
14	2			
15	2			

MATHEMATICIAN: ______________________________

BEANS DIVISION RECORD 1

Beans Used ÷	Beans in each cup	= Cups Used	Remainder	Number Sentence
16	2			
17	2			
18	2			
19	2			
20	2			
4	3			
5	3			
6	3			
7	3			
8	3			
9	3			
10	3			

MATHEMATICIAN: ____________________

BEANS DIVISION RECORD 1

Beans Used ÷	Beans in each cup	= Cups Used	Remainder	Number Sentence
11	3			
12	3			
13	3			
14	3			
15	3			
16	3			
17	3			
18	3			
19	3			
20	3			
4	4			
5	4			

MATHEMATICIAN:______________________________

BEANS DIVISION RECORD 1

Beans Used ÷	Beans in each cup	= Cups Used	Remainder	Number Sentence
6	4			
7	4			
8	4			
9	4			
10	4			
11	4			
12	4			
13	4			
15	4			
16	4			
17	4			
18	4			

MATHEMATICIAN: ______________________________

BEANS DIVISION RECORD 1

Beans Used ÷	Beans in each cup	= Cups Used	Remainder	Number Sentence
19	4			
20	4			
5	5			
6	5			
7	5			
8	5			
9	5			
10	5			
11	5			
12	5			
13	5			
14	5			

*MATHEMATICIAN:*____________________________

BEANS DIVISION RECORD 1

Beans Used ÷	Beans in each cup	Cups Used	Remainder	Number Sentence
15	5			
16	5			
17	5			
18	5			
19	5			
20	5			
6	6			
7	6			
8	6			
9	6			
10	6			
11	6			

MATHEMATICIAN: ______________________________

BEANS DIVISION RECORD 1

Beans Used ÷	Beans in each cup	= Cups Used	Remainder	Number Sentence
12	6			
13	6			
14	6			
15	6			
17	6			
18	6			
19	6			
20	6			

MATHEMATICIAN: ______________________________

BEANS DIVISION RECORD 1 7

Beans Used ÷	Beans in each cup	= Cups Used	Remainder	Number Sentence
7	7			
8	7			
9	7			
10	7			
15	7			
20	7			
30	7			
40	7			
50	7			
60	7			
70	7			
80	7			

*MATHEMATICIAN:*______________________________

BEANS DIVISION RECORD 1+

Beans Used ÷	Beans in each cup	= Cups Used	Remainder	Number Sentence
90	7			
100	7			
8	8			
9	8			
10	8			
15	8			
20	8			
30	8			
40	8			
50	8			
60	8			
70	8			

MATHEMATICIAN: ____

BEANS DIVISION RECORD 1+

Beans Used ÷	Beans in each cup	= Cups Used	Remainder	Number Sentence
80	8			
90	8			
100	8			
9	9			
10	9			
15	9			
20	9			
30	9			
40	9			
50	9			
60	9			
70	9			

MATHEMATICIAN: ______________________________

BEANS DIVISION RECORD 1

Beans Used ÷	Beans in each cup	= Cups Used	Remainder	Number Sentence
80	9			
90	9			
100	9			
10	10			
15	10			
20	10			
25	10			
30	10			
35	10			
40	10			
45	10			
50	10			

MATHEMATICIAN: ______________________________

BEANS DIVISION RECORD 1+

Beans Used ÷	Beans in each cup	= Cups Used	Remainder	Number Sentence
55	10			
60	10			
65	10			
70	10			
75	10			
80	10			
85	10			
90	10			
95	10			
100	10			

*MATHEMATICIAN:*____________________________________

BEANS DIVISION RECORD 2+

Beans Used ÷	Cups =	Beans needed in each cup	Remainder	Number Sentence
70	7			
71	7			
72	7			
73	7			
74	7			
75	7			
76	7			
77	7			
78	7			
79	7			
80	8			
81	8			

*MATHEMATICIAN:*______________________________

BEANS DIVISION RECORD 2+

Beans Used ÷	Cups =	Beans needed in each cup	Remainder	Number Sentence
82	8			
83	8			
84	8			
85	8			
86	8			
87	8			
88	8			
89	8			
90	9			
91	9			
92	9			
93	9			

*MATHEMATICIAN:*________________________________

BEANS DIVISION RECORD 2+

Beans Used ÷	Cups =	Beans needed in each cup	Remainder	Number Sentence
94	9			
95	9			
96	9			
97	9			
98	9			
99	9			
100	10			

*MATHEMATICIAN:*______________________________

BEANS DIVISION RECORD 2

Beans Used ÷	Cups =	Beans needed in each cup	Remainder	Number Sentence
4	2	2	0	4 2 = 2
5	2			
6	2			
7	2			
8	2			
9	2			
10	2			
11	2			
12	2			
13	2			
14	2			
15	2			
16	2			
17	2			
18	2			
19	2			
20	2			

*MATHEMATICIAN:*__________________________________

BEANS DIVISION RECORD 2

Beans Used ÷	Cups =	Beans needed in each cup	Remainder	Number Sentence
4	3			
5	3			
6	3			
7	3			
8	3			
9	3			
10	3			
11	3			
12	3			
13	3			
14	3			
15	3			
16	3			
17	3			
18	3			
19	3			
20	3			
21	3			

*MATHEMATICIAN:*____________________________

BEANS DIVISION RECORD 2

Beans Used ÷	Cups =	Beans needed in each cup	Remainder	Number Sentence
22	3			
23	3			
24	3			
25	3			
26	3			
27	3			
28	3			
29	3			
30	3			
4	4			
5	4			
6	4			

*MATHEMATICIAN:*______________________________________

BEANS DIVISION RECORD 2

Beans Used ÷	Cups =	Beans needed in each cup	Remainder	Number Sentence
7	4			
8	4			
9	4			
10	4			
11	4			
12	4			
13	4			
14	4			
15	4			
16	4			
17	4			
18	4			

*MATHEMATICIAN:*________________________________

BEANS DIVISION RECORD 2

Beans Used ÷	Cups =	Beans needed in each cup	Remainder	Number Sentence
19	4			
20	4			
21	4			
22	4			
23	4			
24	4			
25	4			
26	4			
27	4			
28	4			
29	4			
30	4			

MATHEMATICIAN: ______________________________

BEANS DIVISION RECORD 2

Beans Used ÷	Cups =	Beans needed in each cup	Remainder	Number Sentence
31	4			
32	4			
33	4			
34	4			
35	4			
36	4			
37	4			
38	4			
39	4			
40	4			
4	5			
5	5			

*MATHEMATICIAN:*________________________________

BEANS DIVISION RECORD 2

Beans Used ÷	Cups =	Beans needed in each cup	Remainder	Number Sentence
6	5			
7	5			
8	5			
9	5			
10	5			
11	5			
12	5			
13	5			
14	5			
15	5			
16	5			
17	5			

*MATHEMATICIAN:*________________________________

BEANS DIVISION RECORD 2

Beans Used ÷	Cups =	Beans needed in each cup	Remainder	Number Sentence
18	5			
19	5			
20	5			
21	5			
22	5			
23	5			
24	5			
25	5			
26	5			
27	5			
28	5			
29	5			

*MATHEMATICIAN:*____________________________________

BEANS DIVISION RECORD 2

Beans Used ÷	Cups =	Beans needed in each cup	Remainder	Number Sentence
30	5			
31	5			
32	5			
33	5			
34	5			
35	5			
36	5			
37	5			
38	5			
39	5			
40	5			
41	5			

*MATHEMATICIAN:*____________________________________

BEANS DIVISION RECORD 2

Beans Used ÷	Cups =	Beans needed in each cup	Remainder	Number Sentence
42	5			
43	5			
44	5			
45	5			
46	5			
47	5			
48	5			
49	5			
50	5			
4	6			
5	6			
6	6			

*MATHEMATICIAN:*______________________________

BEANS DIVISION RECORD 2

Beans Used ÷	Cups =	Beans needed in each cup	Remainder	Number Sentence
7	6			
8	6			
9	6			
10	6			
11	6			
12	6			
13	6			
14	6			
15	6			
16	6			
17	6			
18	6			

*MATHEMATICIAN:*____________________________________

BEANS DIVISION RECORD 2

Beans Used ÷	Cups =	Beans needed in each cup	Remainder	Number Sentence
19	6			
20	6			
21	6			
22	6			
23	6			
24	6			
25	6			
26	6			
27	6			
28	6			
29	6			
30	6			

*MATHEMATICIAN:*______________________________

BEANS DIVISION RECORD 2

Beans Used ÷	Cups =	Beans needed in each cup	Remainder	Number Sentence
31	6			
32	6			
33	6			
34	6			
35	6			
36	6			
37	6			
38	6			
39	6			
40	6			
41	6			
42	6			

*MATHEMATICIAN:*________________________________

BEANS DIVISION RECORD 2

Beans Used ÷	Cups =	Beans needed in each cup	Remainder	Number Sentence
42	6			
43	6			
44	6			
45	6			
46	6			
47	6			
48	6			
49	6			
50	6			
51	6			
52	6			
53	6			

*MATHEMATICIAN:*________________________________

BEANS DIVISION RECORD 2

Beans Used ÷	Cups =	Beans needed in each cup	Remainder	Number Sentence
54	6			
55	6			
56	6			
57	6			
58	6			
59	6			
60	6			

COLUMNS

ROWS

TILES

335